Author: Pennsylvania Dairymen's Association

Title: Report of annual meeting, v. 8

Place of Publication: Lancaster, Pa.

Copyright Date: 1933

Master Negative Storage Number: MNS# PSt SNPaAg024.8

Volume:
8

The Pennsylvania Dairymen's Association

Organized 1925

Succeeding the following organizations:
The Crawford County Dairy Association (1871)
The Pennsylvania Dairy Association (1874)
The Pennsylvania Dairy Union (1898)
The Pennsylvania Livestock Breeders' and Dairymen's Association (1916)

REPORT

of the

EIGHTH ANNUAL MEETING

January 19, 1933
Harrisburg, Pa.

DR. E. S. DEUBLER, President
Penshurst Farm, Narberth, Pa.

C. R. GEARHART, Secretary-Treasurer
Dairy Building, State College, Pa.

CONTENTS

Feeding Under Present Conditions 3- 9

R. H. **Olmstead**, Dairy Extension Specialist
The Pennsylvania State College, State College, Pa.

The Economic Position of the Dairy Industry in Pennsylvania 9-17

Dr. F. P. **Weaver**, Department of Agricultural Economics,
The Pennsylvania State College, State College, Pa.

New Jersey Milk Regulations 18-20

Dr. James E. Russell
New Jersey Board of Health, Trenton, N. J.

Bang Disease in Relation to Interstate Cattle 20-30

Dr. T. E. Munce
Director, Pennsylvania Bureau of Animal Industry, Harrisburg, Pa.

Aims of the Breed Associations 30-33

Lewis W. **Morley**, Secretary American Jersey Cattle Club
324 West 23rd St., New York City, N. Y.

Annual Business Meeting, Pennsylvania Dairymen's Association 33-37

Annual Banquet 38

Merit Awards 39-40

Honor Roll 41-63

Feeding Under Present Conditions

R. H. Olmstead

Dairy Extension Specialist

The Pennsylvania State College, State College, Pa.

MANY cows throughout Pennsylvania are being underfed at the present time. The owners are taking the attitude that since milk is low in price they will save what they can on grain, take what milk they can get and be satisfied.

The dairymen who are materially underfeeding have neglected to take into consideration the feed it takes to maintain a cow in a day. The maintenance feed or feed that is required to keep a cow alive and to keep up the vital processes of her body is a rather large and fixed amount. A low-producing cow that averages about 3,000 pounds of milk in a year will use approximately 70 per cent of her feed on maintenance. A cow producing around 6,000 pounds of milk in a year will use 56 per cent of her feed for maintenance, and a cow that milks around 9,000 pounds of milk yearly will use about 44 per cent of her feed for maintenance. For illustration: If we take a cow producing around 25 to 30 pounds of milk daily, we will find that approximately one half of the feed that she eats daily is used for maintenance. In other words there is a rather large fixed feed cost that must be paid regardless of whether a cow is underfed or fed in accordance with her actual requirements.

Since profits in milk production are made entirely from the amount of feed a cow consumes over and above what she must have for maintenance, it would seem that the practical thing to do in feeding would be to give each cow sufficient feed to enable her to produce her normal amount of milk.

The feed cost of producing a hundred pounds of milk varies considerably over the state and even in the same communities or counties. Production of milk per cow affects this feed cost as is shown in Table I which is an average of about 25,000 cows in cow testing association work.

TABLE I.—Feed Cost per 100 Pounds of Milk

Pound of Milk Per Year	*Estimated Present Feed Cost*
3,000- 4,000	$1.06
4,000- 5,000	.91
5,000- 6,000	.82
6,000- 7,000	.77
7,000 -8,000	.72
8,000- 9,000	.69
9,000-10,000	.66
10,000- over	.59

The figures in the table given are general averages. When it comes to a comparative study of feed costs in individual herds, many instances are found where herds with about the same production will vary greatly in feed cost of 100 pounds of milk as shown in Table II.

TABLE II.—SAME PRODUCTION WITH DIFFERENT FEED COSTS

	Milk	*Fat*	*Feed Cost Cwt. Milk*
1st herd	7376 lbs.	271 lbs.	$.88
2nd herd	7598 lbs.	251 lbs.	.51
		Difference	$.37

7376 lbs. milk x $.37=$27.29 per cow
$27.29 x 20 cows =$545.80

When this difference is multiplied by the pounds of milk produced per cow and then by the number of cows milked, it would amount to a considerable sum of money which might be saved by dairymen with a high feed cost, if they could and would reduce their feed costs to that prevailing in other herds in the community.

Prices charged for grain and roughage will make up some of these differences, but even where these are considered there are still wide variations in feed cost owing to methods in feeding and management.

Since the margin between the price of milk and the feed cost determines the profit a dairyman receives above the cost of feed, it would seem that a dairyman with a high feed cost could increase his profits quicker by lowering his feed costs than in any other way.

Carelessness in feeding grain seems to be one of the big factors affecting the feed cost of milk. Many dairymen feed grain with a scoop or basin but follow no particular method as to the amount given to each cow. As a result, some cows are overfed and some are underfed. When cows are overfed, the digestibility of the feed is usually lowered, and the extra feed may put some flesh on the animal, but the net result is almost invariably to increase the cost of producing milk. When cows are underfed, the milk production drops. The maintenance feed remains the same. If a cow is underfed to the point that her milk production drops to half her normal amount, then she must be maintained for two days to get the milk that should be obtained in one day. Since there is no return for the feed that goes for maintenance, this in turn also raises the feed cost of milk.

Since overfeeding and underfeeding both raise the cost of producing milk, the question arises as to what is the cheapest milk that can be obtained from an individual cow. The answer is the cow's normal production when kept under good conditions.

This normal production will vary with the different cows in the herd. This makes it necessary to adopt some definite method of feeding grain. A method that has proved practical for a majority of dairymen is to feed Guernseys and Jerseys one pound of grain to each three pounds of milk; and to feed Holsteins, Ayrshires, and Brown Swiss one pound of grain to each 3½ or 4 pounds of milk produced daily.

This method of feeding has a weakness, however, in that it may at times overfeed the low-producing cows and underfeed the high producers. Then too, one pound of grain does not furnish enough nutrients for 3 or 4 pounds of milk as is shown in Table III:

TABLE III.—NUTRIENTS REQUIRED AND NUTRIENTS FURNISHED BY FEEDING ONE POUND OF GRAIN TO EACH 3 OR 4 POUNDS OF MILK.

	Digestible Crude Protein	*Total Digestible Nutrients*
4 lbs.—3.5% milk	.220	1.200
3 lbs.—5.0% milk	.198	1.146
1 lb. 20% protein grain mixture	.165	.750

With this in mind, the Government Experiment Farm, at Beltsville, has worked out what is known as Beltsville's new method of apportioning grain to milking cows. They found that when cows were fed daily three pounds of silage for each 100 pounds of liveweight and all the good hay they would clean up that the cows would eat enough roughage to supply nutrients for maintenance and a certain amount of milk extra. Grain was then fed in proportion to the amount of milk produced above this so-called basic amount.

Table IV gives the basic amount of milk provided for by the roughage and the method of feeding grain above that amount.

TABLE IV.—BELTSVILLE'S NEW METHOD OF PROPORTIONING GRAIN TO MILKING COWS.

	Do Not Feed Grain for First	*For Each One Pound of Milk Over Basic Amount Feed*
Jerseys	10 lbs. milk	.6 lb. grain
Guernseys	12 lbs. milk	.55 lb. grain
Ayrshires and Brown Swiss	16 lbs. milk	.45 lb. grain
Holsteins	16 lbs. milk	.40 lb. grain

It is questionable whether this method of feeding can be used with high-producing cows, as heavy grain feeding may throw a cow "off-feed." The safest plan is to limit the grain on high-producing cows to about 1½ pounds of grain for each 100 pounds of liveweight and where necessary make up the difference with beet pulp or some root crop.

Another factor that affects the feed cost of milk is the way in which cows are watered. Milk is approximately 87 per cent water and the way in which cows are watered determines to a certain degree the amount of milk that will be obtained from the feed used. Cows that go out to streams or troughs where the ice must be removed during cold weather will not produce nearly as much milk from a given amount of feed as those same cows will when watered with cups or water in the barn. Many cases are known where a change in watering has meant an increase of an extra can of milk from 15 cows without any change in feed. This naturally has a big effect on the feed cost of that milk. The installation of watering cups should be considered as a permanent investment in feed rather than barn equipment. Most feed that is purchased might be thought of as a temporary investment. The installation of cups or a trough in the shed can be considered as a permanent investment in feed to be used for several years.

A dry period of six to eight weeks before freshening and the feeding of a fitting ration during this dry period will also help to lower the feed cost of milk. Cows that milk up to the time of freshening or cows that freshen in a thin condition will not produce during the next lactation period what might be expected from them. Since the maintenance cost remains the same, any practice that lowers the cow's normal production of milk naturally raises the cost.

Cows that are good to high producers drain their systems of nutrients which must be replaced. The logical time to replace these nutrients is during the dry period. A good commercial fitting ration may be used for this period or a grain mixture made up as follows:

100 lbs.	ground corn, barley, wheat, or hominy
100 lbs.	ground oats
100 lbs.	wheat bran
50-100 lbs.	linseed oil meal or soybean oil meal

There is a personal side to feeding which must be kept in mind at all times. Every dairyman must know his own cows and apply the various feeding practices as he thinks best. This so-called personal side of feeding comes into operation in feeding and handling a dry cow more than at any other time. How much grain to feed a dry cow per day? How soon before freshening shall one let up on grain? What to feed just a day or two before calving? These questions the dairyman must answer himself to a certain extent.

The best barometer in feeding just before and just after freshening is the condition of the cow's udder. With some cows, the grain must be decreased before freshening sooner than with others; and after freshening, some cows can be put on full feed sooner than others. The average is to drop on grain about a week ahead of freshening until a cow is getting just bran or bran and oats or perhaps some beet pulp the last few days before she calves. The same thing holds true after freshening. Bran, bran and oats, and beet pulp may be used for a few days and then gradually changed to the milking ration so that the cow will be on full feed about four weeks after calving. Above all else, let the cow's udder be the guide to this feeding.

The grain mixture may vary in protein depending on the kind of hay a dairyman has available. Hays vary considerably in their protein content and also in the digestibility of the protein. Table V gives the comparison of various hays:

TABLE V.—Comparison of Hays in Amount and Digestibility of Protein.

	Protein per ton	*Protein per acre*	*Percentage Digestibility of Protein*
Alfalfa	298 lbs.	894 lbs.	71%
Soybean	320 lbs.	480 lbs.	73%
Clover	256 lbs.	512 lbs.	59%
Mixed	190 lbs.	332 lbs.	56%
Timothy	124 lbs.	186 lbs.	48%

Suggestions for grain mixtures to go with the various hays and silage are as follows:

With timothy hay or corn stover, feed a 24% protein grain mixture
With mixed hay or clover hay, feed a 20% protein grain mixture
With alfalfa or soybean hay, feed a 16% protein grain mixture

Recent investigations at the New York Agricultural Experiment Station show that possibly many dairymen have been feeding too much protein. Thirty-six cows were divided into three groups of 12 cows each. For a period of two years, one group of cows was fed a 24% crude protein grain mixture; another group was fed a 20% crude protein grain mixture, and the third group received a 16% crude protein mixture. The total digestible nutrients of all three grain mixtures were the same.

All cows received 3 pounds of silage for each 100 pounds of liveweight and one pound of No. 2 mixed clover and timothy hay per 100 pounds of liveweight. The grain mixtures were fed at the rate of one pound of grain for each 3½ pounds of milk daily.

The low protein grain mixtures gave just as good results as the high protein grain mixtures and the cows utilized the nutrients in the low protein mixtures just as well as in the high protein grain mixtures as is show in Table VI.

TABLE VI.—Feed Required for Each 100 Pounds of Milk

	Concentrates Lbs.	*Hay Lbs.*	*Silage Lbs.*
16 per cent group	30.1	37.7	112.7
20 per cent group	29.8	36.5	110.7
24 per cent group	30.3	37.5	112.9

A dairyman who has a good quality of mixed or clover hay which is fed to the extent of at least one pound to each 100 pounds of liveweight in addition to silage can no doubt obtain excellent results with a little lower protein grain mixture than has been the custom to feed in the past. If, however, corn stover is being fed with hay or the amount of hay fed daily falls below one pound for each 100 pounds of liveweight, then more protein should be included in the grain mixture.

The grain mixture to be fed to the cows in milk will vary depending on feeds available and local prices. There are many good readymoved during cold weather will not produce nearly as much milk from a given amount of feed as those same cows will when watered with cups or water in the barn. Many cases are known where a change in watering has meant an increase of an extra can of milk from 15 cows without any change in feed. This naturally has a big effect on the feed cost of that milk. The installation of watering cups should be considered as a permanent investment in feed rather than barn equipment. Most feed that is purchased might be thought of as a temporary investment. The installation of cups or a trough in the shed can be considered as a permanent investment in feed to be used for several years.

A dry period of six to eight weeks before freshening and the feeding of a fitting ration during this dry period will also help to lower the feed cost of milk. Cows that milk up to the time of freshening or cows that freshen in a thin condition will not produce during the next lactation period what might be expected from them. Since the maintenance cost remains the same, any practice that lowers the cow's normal production of milk naturally raises the cost.

Cows that are good to high producers drain their systems of nutrients which must be replaced. The logical time to replace these nutrients is during the dry period. A good commercial fitting ration may be used for this period or a grain mixture made up as follows:

100 lbs. ground corn, barley, wheat, or hominy
100 lbs. ground oats
100 lbs. wheat bran
50-100 lbs. linseed oil meal or soybean oil meal

There is a personal side to feeding which must be kept in mind at all times. Every dairyman must know his own cows and apply the various feeding practices as he thinks best. This so-called personal side of feeding comes into operation in feeding and handling a dry cow more than at any other time. How much grain to feed a dry cow per day? How soon before freshening shall one let up on grain? What to feed just a day or two before calving? These questions the dairyman must answer himself to a certain extent.

The best barometer in feeding just before and just after freshening is the condition of the cow's udder. With some cows, the grain must be decreased before freshening sooner than with others; and after freshening, some cows can be put on full feed sooner than others. The average is to drop on grain about a week ahead of freshening until a cow is getting just bran or bran and oats or perhaps some beet pulp the last few days before she calves. The same thing holds true after freshening. Bran, bran and oats, and beet pulp may be used for a few days and then gradually changed to the milking ration so that the cow will be on full feed about four weeks after calving. Above all else, let the cow's udder be the guide to this feeding.

The grain mixture may vary in protein depending on the kind of hay a dairyman has available. Hays vary considerably in their protein content and also in the digestibility of the protein. Table V gives the comparison of various hays:

TABLE V.—COMPARISON OF HAYS IN AMOUNT AND DIGESTIBILITY OF PROTEIN.

	Protein per ton	*Protein per acre*	*Percentage Digestibility of Protein*
Alfalfa	298 lbs.	894 lbs.	71%
Soybean	320 lbs.	480 lbs.	73%
Clover	256 lbs.	512 lbs.	59%
Mixed	190 lbs.	332 lbs.	56%
Timothy	124 lbs.	186 lbs.	48%

Suggestions for grain mixtures to go with the various hays and silage are as follows:

With timothy hay or corn stover, feed a 24% protein grain mixture
With mixed hay or clover hay, feed a 20% protein grain mixture
With alfalfa or soybean hay, feed a 16% protein grain mixture

Recent investigations at the New York Agricultural Experiment Station show that possibly many dairymen have been feeding too much protein. Thirty-six cows were divided into three groups of 12 cows each. For a period of two years, one group of cows was fed a 24% crude protein grain mixture; another group was fed a 20% crude protein grain mixture, and the third group received a 16% crude protein mixture. The total digestible nutrients of all three grain mixtures were the same.

All cows received 3 pounds of silage for each 100 pounds of liveweight and one pound of No. 2 mixed clover and timothy hay per 100 pounds of liveweight. The grain mixtures were fed at the rate of one pound of grain for each 3½ pounds of milk daily.

The low protein grain mixtures gave just as good results as the high protein grain mixtures and the cows utilized the nutrients in the low protein mixtures just as well as in the high protein grain mixtures as is show in Table VI.

TABLE VI.—FEED REQUIRED FOR EACH 100 POUNDS OF MILK

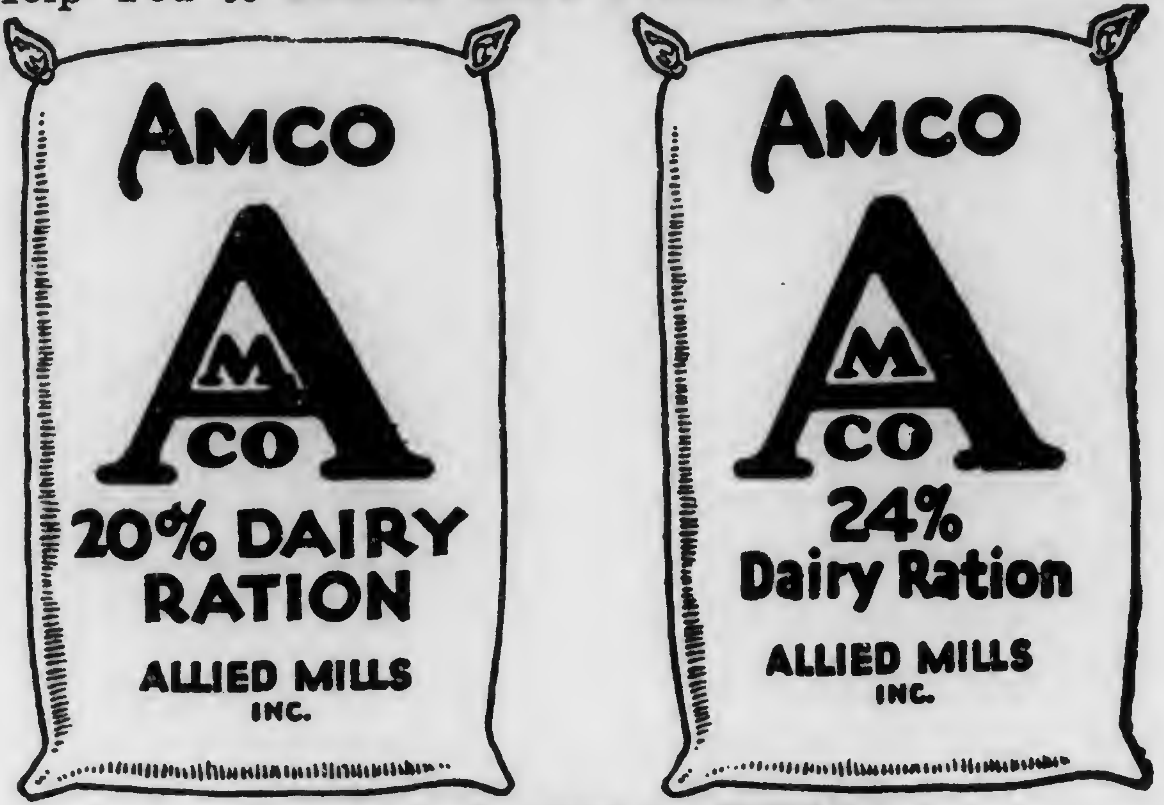
	Concentrates Lbs.	*Hay Lbs.*	*Silage Lbs.*
16 per cent group	30.1	37.7	112.7
20 per cent group	29.8	36.5	110.7
24 per cent group	30.3	37.5	112.9

A dairyman who has a good quality of mixed or clover hay which is fed to the extent of at least one pound to each 100 pounds of liveweight in addition to silage can no doubt obtain excellent results with a little lower protein grain mixture than has been the custom to feed in the past. If, however, corn stover is being fed with hay or the amount of hay fed daily falls below one pound for each 100 pounds of liveweight, then more protein should be included in the grain mixture.

The grain mixture to be fed to the cows in milk will vary depending on feeds available and local prices. There are many good ready-

MORE MILK per COW

1933 Methods Demand Highest Production at Lowest Possible Cost. AMCO OPEN FORMULA Dairy Feeds Help You to Realize More Profit Per Cow.



AMCO FEED SERVICE
(Division of Allied Mills, Inc.)
District Office Muncy, Pennsylvania

Pennsylvania ranks second among other states in the number of Registered Guernsey cattle.

More Guernseys are on official test than any other breed.

The Guernsey breed offers you greater opportunities in selling your surplus cattle and marketing special milk than any other dairy breed.

Pennsylvania Guernsey Breeders Association

Harrisburg, Pa.

Golden GUERNSEY
America's Table MILK

mixed feeds on the market for those who wish to use them. For those who have their own chop which is made up of two or more of the following farm grains (corn, oats, barley, wheat, and buckwheat), a protein supplement running 30 to 34 per cent protein may be used to mix with the chop or protein carriers such as cottonseed meal, linseed oil meal, soybean oil meal, gluten feed, or gluten meal.

Table VII gives a few suggested grain mixtures which may have to be varied in the various communities depending on prices and feeds available.

TABLE VII.—GRAIN MIXTURES.

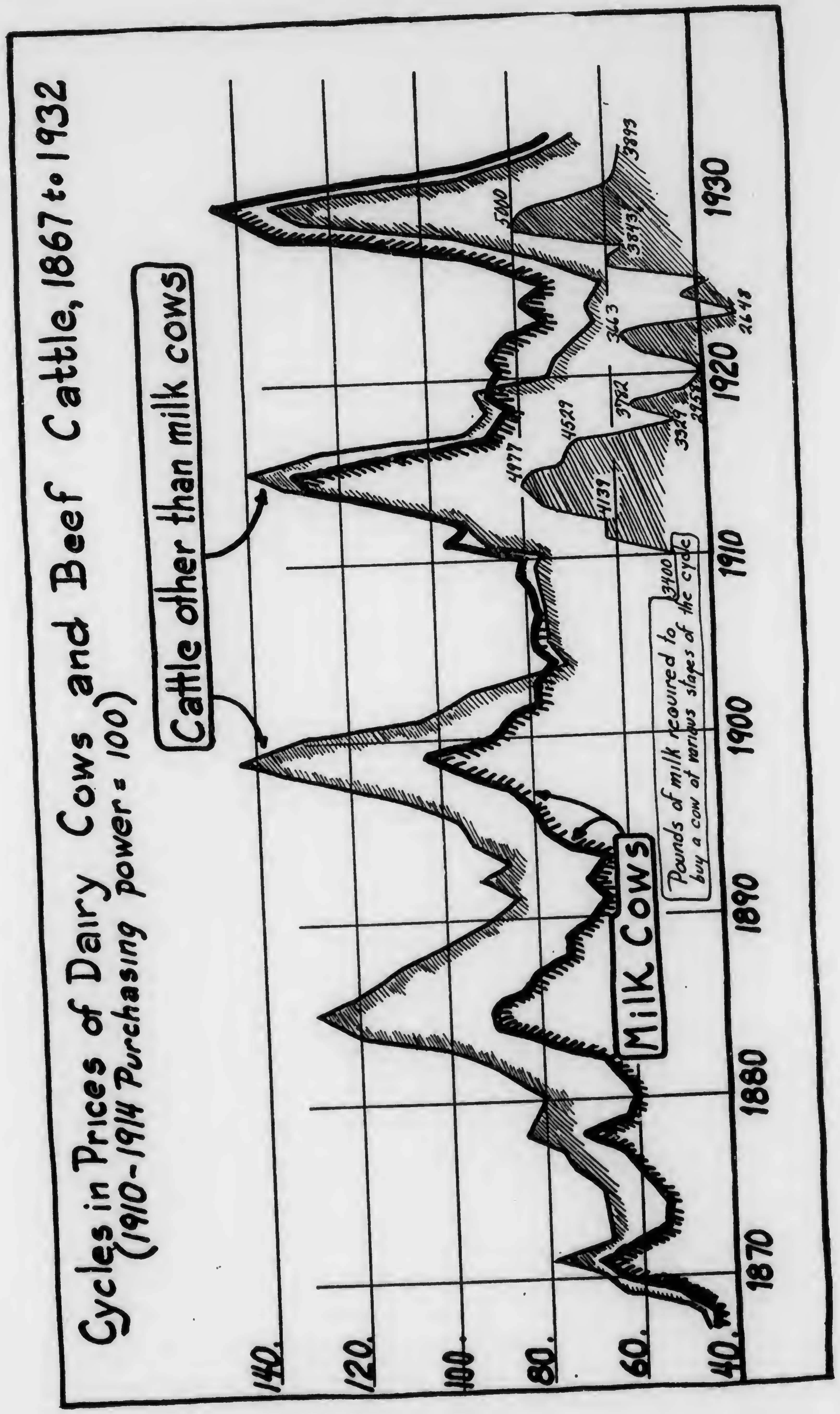
	16% *Protein Mixture*	20% *Protein Mixture*	24% *Protein Mixture*
Chop	1500	1200	900
Bran	200	200	300
Gluten meal	100	200	200
Cottonseed meal	100	200	300
Soybean meal	100	200	300
Chop	1450	1100	800
30-34% supplement	550	900	1200

The Economic Position of the Dairy Industry in Pennsylvania

DR. F. P. WEAVER

An appraisal of the economic position of the dairy industry once a year, with an attempt to look somewhat into the future, is an inescapable part of the responsibility of the dairyman in planning his work. No one can forecast future economic conditions in any industry with a high degree of certainty, and the present speaker knows only too well his limitations in this respect. Some of the interpretations that I will make will no doubt be wrong, and they are being made in that spirit and I hope that you folks will accept them in the same way. The only justification for this talk is the fact that government agencies, both Federal and State, are collecting facts regarding the dairy industry which should be helpful in planning the year's work. The Pennsylvania State College is in a position to assemble those facts and to bring them before you. In order to make them most useful we will attempt to interpret them. But the main effort is to give you the facts upon which the interpretations are based so that when it is all over you can arrive at your own conclusions and make your own interpretations so far as your use of them is concerned.

We will first take a look at the position of the dairy industry in its own cyclical movement. Dairy cattle prices in the last fifty years have followed a more or less regular cyclical movement which is very closely associated with the movement of beef cattle prices. Chart I.



This seems to indicate that the price which dairy cows bring is affected as much by what you can get for the discarded cows that are sold to the butcher as by what they are worth for milk production. The last high peak in this movement of dairy cattle prices was in 1929; the previous high peak before that was fourteen years earlier, and the high point prior to that about 1899. It, therefore, appears as though dairy cattle would be high in proportion to other prices once every fourteen to sixteen years. From this statement one might conclude that from the high point reached early in 1929 dairy cow prices would decline for seven or eight years, reaching a low point about 1936 or 1937. A study of the chart indicates, however, that that is not the way prices move. When the peak of prices is reached and they begin to drop, the drop is very steep for the first three to five years and then the movement is more or less up and down without any distinct tendency to work to either lower or higher levels until a very definite rise begins in the last three or four years of the cycle.

The question that is of vital concern to every dairyman at the present time is whether the drop in price which has been going on since 1929 has reached the level of the valley over which it will move up and down for the next three or four years or whether the decline has to go still farther. To throw some light on this point, the rate at which heifers are being raised to replace dairy cows that are slaughtered should be helpful. From 1923 to 1926 when the dairy cow cycle was at the previous low ebb, there were being raised about 18.5 heifers for every hundred dairy cows in the United States. From 1928 to 1931 when prices of cows were high in proportion to the prices received for milk, 20.0 heifers were being raised per hundred cows. The average of the thirteen year period from 1921 to 1932 is 19.2 and the number raised during the year 1932 is 19.2. It would, therefore, appear that heifers were being raised during the last year at a rate which is just adequate for replacement and not at a low enough rate to reduce the number of dairy cows sufficiently to halt the downward trend of cattle prices.

For Pennsylvania the production of heifers was 14.1 at the low point of the cattle price cycle and 18.5 at the top. The average for the thirteen years was 16.1, but last year we were still raising 17.5, indicating that in this State dairymen are still finding dairy cattle production profitable enough to grow more than are needed for replacement purposes.

Another relationship which may throw some light on the actual position in the dairy cow cycle is the pounds of milk required to buy a dairy cow. In June of 1928 and 1929 it required 5,000 pounds of milk to buy a cow under average prices then prevailing in Pennsylvania. From 1918 to 1923, which was the liquidating period in the previous cycle, the pounds of milk required to buy a dairy cow in December went as low as from 2,200 to 2,300 pounds. The average for that period, however, was nearer 3,000 pounds. In December 1932 it required 3,500 pounds of milk at average prices in this State to buy a dairy cow. This would indicate that cattle prices are still somewhat high in relation to milk prices.

A third factor which enters into the situation is the relation of dairy feed prices to the prices received for milk.

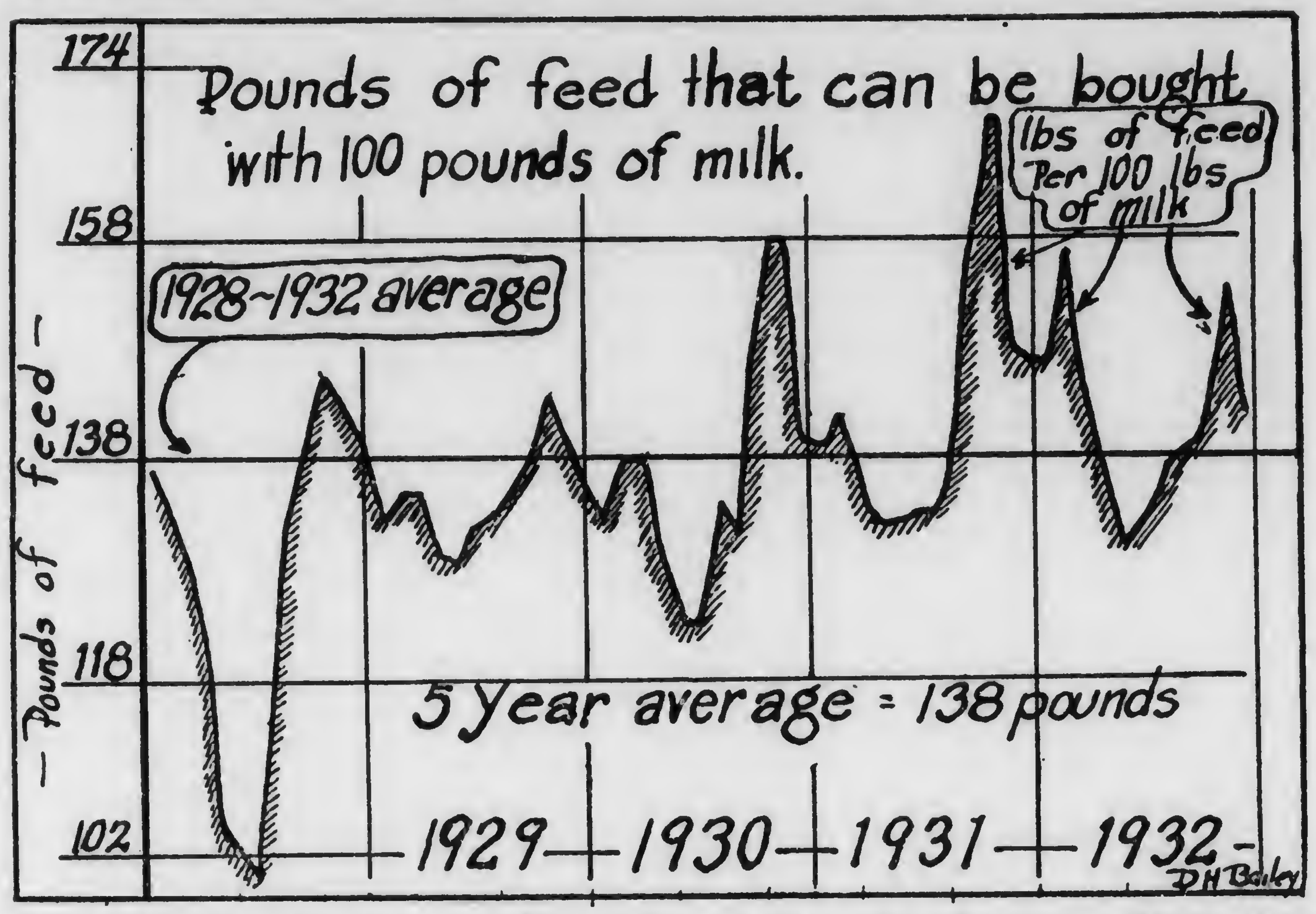


CHART II.—POUNDS OF FEED THAT CAN BE BOUGHT WITH 100 POUNDS OF MILK.

During the last five years a hundred pounds of milk bought on the average 138 pounds of an average dairy ration. In December 1932 it bought 139 pounds. The average for 1932, however, was 142 pounds of feed for a hundred pounds of milk, as shown in Chart II. This indicates that feed is still somewhat cheaper relatively than milk, and under these circumstances dairymen no doubt find it more profitable to continue to feed all their home grown grains and forage, as well as a certain amount of purchased concentrates, rather than to sell cows at these low prices.

In trying to interpret these three facts and indicate the light which they throw on the position of the dairy cycle it would seem as though dairy cattle prices had not reached the low point of the cycle and that, therefore, some decline during 1933 should be anticipated. It would also indicate that a period of three to five years at least is ahead of us before any permanent recovery in dairy cattle prices should be expected. During those three to five years the adjustments that will have to be made will be a reduction in the number of heifers raised per hundred cows to somewhat below replacement requirements and the gradual elimination of old and low producing cows to the butcher at a rate that the growing heifers will not quite replace. This liquidation period will probably require anywhere from three to five years, but will no doubt be modified by industrial conditions which will affect the demand for milk and meat. A year or two of relatively short feed crops, which would raise the price of feed higher in relation to the price of milk than that which prevailed the last few years, would speed up this liquidation and shorten the time required. On the other hand, industrial recovery that would increase the demand for fluid milk would tend to bring about some temporary rise in the cattle prices but would not likely change the cycle as a whole. It would be one of those minor peaks or hills down in the valley rather than a new mountain top.

In this connection it is interesting to note that while on January 1 the country had the largest number of dairy cows in the history of the nation, the increase in recent years was not quite adequate to maintain the same per capita increase in milk production as had been the order for the last twelve or fifteen years. It is doubtful, however, whether recovery of steady employment would bring with it the increasing milk consumption to which we have become accustomed in the last fifteen years. New York City, for example, increased its consumption of milk 4.4 per cent per year for the forty-five years prior to 1929. That increase had probably reached the point where it would have flattened out even if the present depression had not come in 1929. Since 1929, however, consumption has declined 6 to 7 per cent. The consumption in Philadelphia is estimated to be 7 to 8 per cent below the peak of 1929.

That consumption is below normal is recognized, and any pronounced business recovery during the next year or two would no doubt bring with it adequate consumption increase to wipe out any present surplus of dairy products. That might result in a temporary increase in dairy cattle prices, but could not result in a shortage of dairy cattle that would run the prices up to a peak like those peaks reached in 1929 and in 1915.

THE GENERAL FARM PRICE SITUATION IN PENNSYLVANIA

The data that have been presented and discussed so far were on the prices of dairy cattle, milk and feed in relation to each other and in their relation to other prices; in other words, it is the purchasing power of dairy cattle that is considered in determining the dairy cow cycle. In addition to these relative declines there has been a general decline in all prices, as is well known, which has brought with it a number of other problems. The prices of the twenty leading farm products in Pennsylvania are indicated in the following table.

PRICES OF PENNSYLVANIA FARM PRODUCTS—1928 AND 1932

Product	Unit	Average Price		Index Number Base:1910-14=100		Per Cent Drop in Price
		1928	1932	1928	1932	
Corn	per bu.	$ 1.07	$ .42	148	58	61
Wheat	per bu.	1.43	.56	147	58	61
Oats	per bu.	.60	.30	122	62	50
Hay	per ton	11.78	9.59	73	59	19
Potatoes	per bu.	1.00	.51	132	67	49
Apples	per bu.	1.59	.70	201	88	56
Rye	per bu.	1.12	.46	144	59	59
Buckwheat	per bu.	.95	.40	136	57	58

Product	Unit	Average Price		Index Number Base: 1910-14=100		Per Cent Drop in Price
		1928	1932	1928	1932	
Chickens	per lb.	.251	155	185	114	38
Eggs	per doz.	.37	.206	143	114	44
Butter	per lb.	.49	.23	163	86	53
Wool	per lb.	.41	.14	193	66	66
Horses	per head	131.50	103.08	76	60	22
Milk Cows	per head	121.42	51.75	230	98	57
Veal Calves	per cwt.	13.58	6.09	168	75	55
Hogs	per cwt.	9.95	4.76	124	59	52
Beef Cattle	per cwt.	10.18	4.83	161	76	53
Lambs	per cwt.	12.28	5.20	188	80	58
Sheep	per cwt.	7.32	2.50	151	51	69
Milk	per cwt.	2.83	1.42	175	88	50

This indicates that while hay dropped 19 per cent in price and horses 22 per cent in the last four years, most of the farm products in this State dropped from 50 to 60 per cent. One of the ill effects of such a drop is brought about by the fact that prices of commodities which farmers buy and of services which they must hire do not drop at the same rate. This is not due to any special manipulation of prices on the part of any group of people so much as it is inherent in the price movements of raw materials as compared with the prices of finished products. Margins of distribution do not rise so rapidly during rising prices nor fall so rapidly during declining prices as do the prices of commodities; consequently, the raw materials out of which finished goods are made decline a great deal more than the retail prices of finished products.

One example of the relative decline in a single distribution charge as compared with the decline in farm products is indicated in the following table.

FREIGHT RATES ON FARM PRODUCTS, CARLOAD LOTS, CHICAGO TO NEW YORK AND COMPARATIVE PRICES ON PENNSYLVANIA FARMS—
1913-1932

Commodity and Measure		*Penna. Prices* Dec. 1913	*Dec.* 1932	*Per Cent Change*	*Freight Rates per* 100 *pounds* 1913	1932	*Per Cent Change*
Cattle	cwt.	$7.10	$4.83	—32	$.28	$.53	+ 89
Hogs	cwt.	8.10	4.76	—41	.30	.61	+103
Sheep	cwt.	4.50	2.50	—44	.30	.665	+122
Wheat	bu.	.92	.56	—39	.212	.38	+ 79
Corn	bu.	.74	.42	—44	.212	.38	+ 79
Eggs	doz.	.39	.206	—24	.65	.965	+ 48
Poultry	lb.	.131	.155	+18	.50	.965	+ 93
Butter	lb.	.35	.23	—34	.75	.965	+ 29

This indicates that the cost of transportation as well as other distribution costs have remained relatively very high in proportion to retail prices and that, therefore, the prices at the farm are extremely low in proportion to those prices which the farmer must pay for commodities which are absolutely essential in farm production as well as for living.

This calls attention to the importance of regulation of truck transportation to the farmers of this State who, as a rule, are reasonably close to markets and can resort to the use of trucks in an effort to cut around some of these high distribution costs. It is this fact which gives the Pennsylvania farmer a very decided advantage over his competitor in the Mid-West, and it seems as though he should be interested in seeing that this advantage is not entirely taken away. The trucks should no doubt be made to stand their fair share of the cost of building and maintaining highways, and if the present rates of registration are not adequate in that respect they should be raised. On the other hand, regulation that goes further than that would no doubt work to the detriment of the farming interests of Pennsylvania. If the railroads are not in a position to compete with the trucks, due to the very rigid government regulations under which the railroads are compelled to operate, the relief should be in the form of an easing of those regulations and permitting lower rates on short hauls, rather than on so restricting trucks that the competition is entirely removed. The justification for extreme regulation of railroads in the past has been the monopoly position which they occupied in the transportation field. Today, when that monopoly has been largely broken down because of the ease with which a small operator can put a truck into service, the need of such rigid regulations no longer exists. The farmer's interests should be guarded in whatever development takes place along this line, and we believe that that interest lies in the line of a minimum of regulation which permits these two important transportation agencies to offer the maximum of service at the minimum cost possible under the circumstances, recognizing the fact that neither of these low costs should be because of any special subsidies.

The Business Situation

Improvement in the general business conditions of the country would no doubt bring with it a very material improvement for the farmer, since a price recovery generally results in prices at the farm rising more rapidly than the retail prices of commodities. The prospects for such recovery, however, are dimmed by many complicating circumstances. Time does not permit to treat of these adequately on this occasion, but a few should be mentioned.

An average of the last thirteen depressions made by Colonel Leonard Ayers indicates that in the recovery period bond prices began to pick up about two to three months prior to the low point in business activity, the prices of industrial stocks about a month in advance, and the general average of wholesale prices of all commodities about seven months after the low point in business activity. While international trade conditions as well as international monetary conditions so complicate the present situation that it is almost impossible to forecast what will happen during the coming year, the sequence of these three groups of prices during 1932 would indicate that the low point of the depression may have been reached during the middle of that year. If the year 1933 results in a more or less satisfactory agreement regarding international trade barriers and the reconstruction of European monetary systems on a basis that is adequate to support prices in terms of gold high enough to make it profitable for the United States to trade with those countries, it looks as though the industrial recovery which took place in the Fall of 1932 might be the forerunner of some more similar activity during 1933. That such a recovery will be adequate to carry us up to and above the normal line of business activity is hardly to be expected.

One of the fundamental causes of the depression was very decided over-building of homes, hotels, office buildings and factories throughout all the urban sections of the country, and the encumbrance of this real estate with a debt which seems to throttle all possibility of business activity under present conditions. Liquidation of that situation has not gone far enough that any sustained recovery seems to be imminent. However, in the field of the lighter manufactures stocks are low, and the needs in that field should bring some recovery of that type of industry. The heavier industries, which depend more largely for an outlet of their products on the building trade, seem to be doomed to await a more permanent recovery some years hence.

One of the very pertinent factors in the international situation is the debt settlement. While the moral justification of payment of those debts is not generally questioned in this country, it is doubtful whether our own selfish interests dictate that the debts should be collected. Furthermore, temporary moratoriums, which hang as a cloud over the borrowing capacity of European nations, will not do much to solve the problem. Probably outright cancellation is not necessary, but certainly a long-time moratorium during which a gradual cancellation of debt might be made, dependent upon the purchases by those countries of our goods, would seem to be a very sound approach to this problem.

The question of inflation as a means of raising prices and, therefore, reducing the debt burden, the burden of taxation and also the excessive burden on the farmer due to the relatively low prices of his products in comparison to other products, is another problem on which there is a great deal of difference of opinion. That a controlled inflation movement, which would act as a stimulant to business at the present time, could be used to advantage seems reasonable. Whether such a movement can be inaugurated in at nation with a popular form of government and kept strictly under control, so that it will not carry us beyond the conditions which existed in 1925 and 1926, is not so clear. If it should carry us as far as 1929 conditions or beyond, it is doubtful whether the advantage gained would be worth the havoc it would bring later on.

What the next administration will do in this respect probably no one can foretell at the present time, but it will pay the farmer to watch with interest the developments along this line.

* * *

Highland Farms
GREENSBURG, PENNA.
Here is the place to buy JERSEYS
Cows, Heifers, Calves and Young Bulls
Bred for Quality, Type and Production.
FEDERAL AND STATE ACCREDITED HERD
ALL STOCK NEGATIVE TO ABORTION TEST

Sr. Sire BEAU SYBIL DREADNAUGHT, our Silver Medal Bull, is grandson of old Sybil's Gamboge. He is son of Imp. Rosy Side with two Gold Medal Records and First at 1926 National Dairy Show as a 4-year old. Three daughters of BSD have made Silver Medal Records as 2-year olds, averaging over 10,000 pounds milk and over 500 pounds butter fat each. Our Jr. Sire is Tapon's Nobleman, Jr. a grandson of Nobly Born by You'll Do's Volunteer, both Silver Medal Bulls. All orders, large or small, given careful attention. Write or see us about your needs. Farm one mile north of city.

The New Jersey State Milk Code

Dr. James E. Russell

New Jersey Board of Health, Trenton, N. J.

THE New Jersey Milk Code was adopted last spring, on a signed petition by representatives of the New Jersey Municipal Boards of Health and the leading distributors of milk and cream and representatives of all the farm organizations. The law went into effect the 1st of July.

The object was undoubtedly three-fold: first, on the part of the consumer, represented by the Boards of Health, to secure a better quality of milk and milk production; second, on the part of distributors to allay as much as possible unfair competition that exists in the trade; and third, on the part of the farmers, in the possibility of establishing a legal milk code.

Now as to methods of administration of this law. If, obviously, it is to secure an improved quality of milk, it must be considered as a remedial measure. That of itself involves inspection of sources of supply. Why, you ask, are not other products examined at the point of sale, or at least at the point of introduction into the territory where they are sold? You must bear in mind the fact that milk is one good product that does not stand on its own feet. It is very much in the position of an omelet, made from a dozen eggs. If the entire dozen are good, the omelet will be good. But if there is one bad egg in the dozen, the omelet will be bad. Milk is one product in which the good, bad, and indifferent is mixed and brought to the consumer. From that one bad egg, there is no protection for the consumer, other than that furnished by pasteurization and proper handling of milk at its source.

The New Jersey milk law gives exceptional opportunity to show the effects of a State-wide effort to improve the quality of the milk supply. It requires that all importers of milk and milk products secure from the State Department of Health permits for shipment, to be granted only upon inspection of plants and dairies for which certain specific regulations are prescribed, and with which our own people must comply. Inasmuch as there had been no State control of importation prior to the enactment of this law and no concerted effort to raise the standard of production within the State, we are now getting information that must have an important bearing upon the future development of the dairy industry and that concerns both the business of distribution and the public welfare.

We find that an extraordinary proportion of our milk supply comes from very small herds—the three to five cow type (fifty quarts a day seems to be about the average production from all sources). These small producers find it extremely difficult to meet our legal requirements. When forced to make improvement in equipment and methods those who are unwilling or unable to comply fall out and those who elect to stay in the business make expenditures which are not justified at present prices. The immediate effect upon those who try to better their condition is to increase their production by giving more attention to the care of their cattle and by increasing their herds as rapidly as possible. The result is a decided benefit to the consumer in that he gets a safer and more wholesome food product. At the same time the producer is the loser to the extent that his costs of production are increased.

That the cost of producing a good article is greater than the cost of producing an inferior article there can be no doubt. In milk production it costs more to get a healthy herd and keep it healthy than to get milk from cows under no sort of supervision. Our State has spent upwards of $2,000,000 in the eradication of tuberculosis and it is safe to say that dairymen have borne an equal amount. Other diseases take a heavy toll upon owners of all live-stock. It is decidedly expensive to maintain a healthy herd. And yet a healthy herd is the first essential in securing a safe and wholesome milk supply.

The next essential is that only healthy handlers shall have contact with milk from the cow to the consumer. To lessen chances of contamination specific requirements are made for certain knids of equipment from the milking pail to methods of bottling and capping the bottle before it is put on the consumer's doorstep. This costs money.

The third essential is that there shall be clean cows, clean milking and clean methods of caring for milk. This means more work—much more work—than is necessary to produce milk as a by-product. How much more it costs only those know who have tried it.

So, too, with the fourth essential—clean utensils. They may be sterilized on the kitchen stove but if the job is properly done it adds to the cost. But when dairying becomes a business new equipment is necessary, new or improved buildings must be had and new methods installed. All this adds materially to the costs.

The fifth essential is proper cooling. Whether done by spring water or ice or refrigeration the expense is decidedly increased. To bring milk down from 80° to 60° or 50° or 40° means rapidly increasing costs.

However one looks at the problem of securing a safe and wholesome milk supply, it is clear that costs mount proportionally to the increase in quality. There is, therefore, no possibility of keeping the sanitary and the economic factors of the problem separate and distinct. In the long run the public will get what it pays for. If sanitary regulations break down and become as unenforceable as the 18th Amendment, the public may get a cheap article but it will not be either safe or wholesome. With laxity in inspection and carelessness in processing and handling reliable distributors will be forced to cut expenses both in buying and selling in order to meet unscrupulous competitors. Finally, in a market without restriction, everybody will be hurt because milk is a food that like water comes from thousands of indistinguishable sources, good, bad, and indifferent, all mixed together. Like the omelet that is spoiled by one bad egg, so 99 good supplies may be spoiled by one bad source. The consumer, the distributor and the producer must each have a fair deal. Neither party can suffer without hurting the other; each will gain most by working together in the interests of all.

My deduction from our experience is that: (1) Sanitary control can improve the quality of the milk supply; (2) cost of production is directly correlated with improvement in quality; (3) producers where forced to increase expenditure take more pride in their work and strive to make ends meet by increasing production; (4) however restricted a milk shed the tendency is towards over production; (5) over production develops unscrupulous competition which ultimately defeats the main objective of sanitary control. It looks to me, therefore, that to secure permanently a safe and wholesome milk supply we must have not only sanitary control but also some provision for limiting the supply to the actual needs of the consuming public. A flooded market is a monster that devours its own offspring. Perhaps the solution will be found in some means of restricting the milk shed in proportion to its increase of quality production as limited by public needs.

Bang Disease in Relation to Interstate Cattle

By T. E. Munce, *Director*
Pennsylvania Bureau of Animal Industry
Harrisburg, Pa.

THE right of the states to determine their own policies, laws and regulations has been debated and remained unsettled since the time of Alexander Hamilton and Thomas Jefferson, around 150 years.

Events reveal that the question of states' rights, although some may hesitate to so term it, is a live issue even today. No less so in the prerogatives of the individual states to determine as to their policies and regulations in dealing with the prevention and control of transmissible diseases of livestock.

The prevention and control of transmissible diseases of livestock has a two-fold purpose. First, their relation to public health and second, their great economic importance. Therefore, whatever is done or left undone in the matter of effective prevention and control of these diseases will have an effect upon the public as a whole. Thus, the question becomes one of great national public importance and as we view it, properly within the regulatory scope of the states and the Federal Government.

Comparatively few of the Eastern States breed and raise enough livestock to supply their needs. For this reason, many of these states are obliged to bring cattle in from other states in sufficient

ESCO

Electric Equipment for Sterilizing Utensils and Cooling Milk Overcomes Bacteria Problems

for Clark H. Reed, Penna. dairyman who says:

"This year the bottles and all utensils were . . . . placed in my ESCO Sterilizer and left there until using, and my bacteria count was 400 allowing a perfect score . . . . " Mr. Reed was awarded first premium for his milk both at the Chester-Delaware County Farm Show and at the Pennsylvania Farm Show this year.

Patent Pending

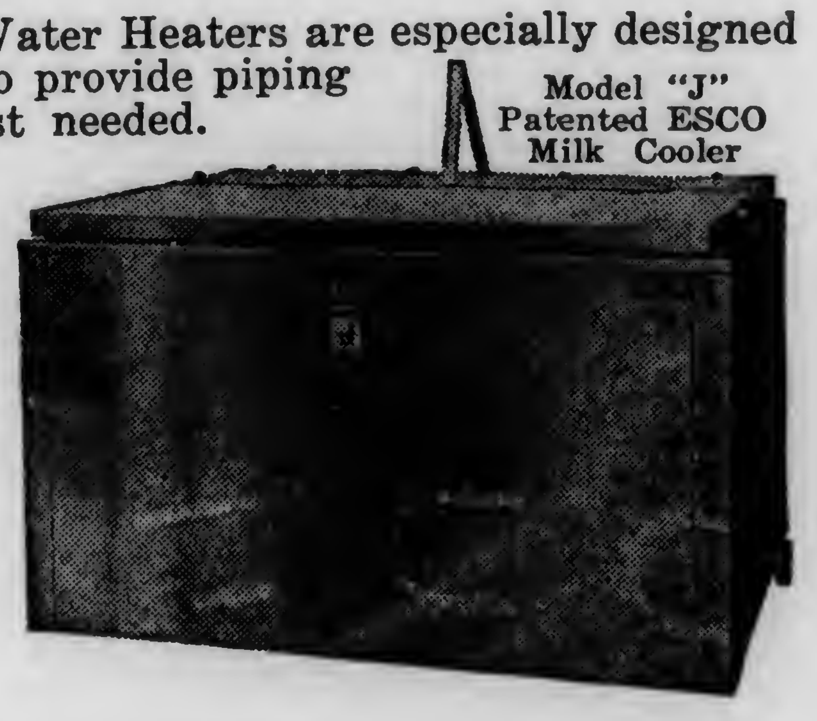
ESCO Electric Utensil Sterilizer

Efficient sterilization followed by complete drying of utensils is the ideal treatment for dairy utensils, and that's exactly what is accomplished *automatically* by ESCO Electric Dairy Utensil Sterilizers. Every feature of this modern equipment, including economy of operation, appeals to the practical dairyman.

ESCO Electric Sterilizers are listed and tested by the Underwriters Laboratories and the ESCO Method of Sterilization is approved by the New York and Pennsylvania State Boards of Health. See Bulletin 612 of the New York Ag. Expt. Sta. (Geneva) and Technical Paper 553 of Pa. Ag. Expt. Sta. for experimental results.

Proper cooling of milk keeps bacteria counts low. Patented ESCO Milk Coolers, in a wide range of sizes and available for cooling milk in cans as well as in bottles. Models "E" and "J" are of the immersion type for cans and Models "B" and "BI" are dry storage coolers for bottled milk.

ESCO Electric Dairy Water Heaters are especially designed for use in the milk house to provide piping hot water right where most needed.



Model "J" Patented ESCO Milk Cooler

Thousands of dairymen, the country over, find that ESCO Equipment makes real money for them, because high quality milk is always in demand.

Complete information gladly sent upon request. No obligation. Write now.

ESCO Cabinet Co.
Manufacturers
West Chester, Penna.

SEALKAPS

.... are the only cover-all caps that protect milk all the time it's in the bottle, as well as the door step.

... are the least expensive cover-all caps on the market —easiest to attach with the lowest cost Kappers.

.... come to you complete—no extra discs to buy.
.... entirely resist moisture and icing.

.... are approved by the Pennsylvania Board of Health.

A Twist—It's Off

A Snap—It's On

Can't Spill

MANY OF OUR CUSTOMERS HAVE MORE THAN DOUBLED THEIR BUSINESS BY USING THE SEAL-KAP DOOR-STEP DEMONSTRATION SALE PLAN .... FOR INFORMATION AND SAMPLES WRITE

AMERICAN SEAL-KAP CORPORATION

1105 44 Drive Long Island City, N. Y.

numbers to meet their local requirements and some Eastern States import thousands of head, especially dairy cattle, to supply the great eastern markets with dairy products. The livestock regulatory officials of the Eastern States have much concern and grave responsibility over the health of imported livestock, for the reason that trsnmissible diseases usually go hand in hand with the traffic in livestock and for the prevalence of Bang's disease in most exporting states and especially the methods in vogue in some states for handling cattle which fail to pass the blood test for Bang's disease.

Laws and regulations governing the movement of livestock for transmissible diseases, should foremost and specifically be designed to prevent and control those diseases. Such laws and regulations should never be promulgated unless and until they become necessary from a disease prevention and control standpoint.

Necessity for Interstate Regulation

All will agree, that laws and regulations are necessary to prevent and control the traffic in diseased animals and thus safeguard the health of our herds and flocks.

The right of a state to regulate the movement of livestock within its confines is unquestioned. Differences of opinion may exist, however, concerning the jurisdiction of the states over the health of livestock as it moves interstate. Federal Court decisions, we are informed, place the jurisdiction over the movement of livestock interstate wholly under the Federal Government and restrain the states from the control over the movement of livestock into the states. In other words, the U. S. Department of Agriculture alone according to these decisions has jurisdiction over the movement of livestock from the state of Maryland into the State of Pennsylvania. Futhermore, the State of Pennsylvania has no authority until after the livestock arrives at destination in this state. Regardless, however, of such court decisions, practically every state in the union has promulgated regulations in which they undertake to prescribe the conditions under which livestock may enter the particular state.

While considerable conflict exists between the various State and Federal livestock requirements and Federal Court decisions, we believe that the states are justified in attempting to enforce state laws and regulations designed to protect their herds against Bang's disease infection from other states at least until such time: first, the Federal Government adopts adequate measure to do so, and second, the state livestock regulatory authorities not only take adequate measures to properly control the movement of Bang's diseased animals within their respective states, but to make sure that only healthy animals shall be exported.

At this point, I want to again emphasize what I have said on numerous occasions; namely, "Any plan devised for the effectual control and eradication of Bang's disease or any other transmissible disease must of necessity regulate the handling of infected animals." This is fundamental.

Bang's disease is due to a specific cause (Brucella abortus bang) which may be transmitted from one animal to another. In other words, every case of Bang's disease comes either directly or indirectly from another case of Bang's disease. This fact makes Bang's disease clearly a disease which should come in the class of diseases controlled by regulating the movements of infected animals. No state can consistently object to or justly criticize a sister state for refusing to accept its cattle without suspicion and rigid restrictions so long as it does not require the reactors or suspects to the blood tests to be slaughtered or properly segregated and safely quarantined, or so long as large numbers of the herd owners who sell cattle follow the do nothing policy in relation to cleaning up their herds.

Attitude of the Eastern States

With few exceptions the Eastern States do not raise sufficient cattle to supply their requirements. As a result, thousands of breeding, dairy and feeder cattle must be imported annually. The Federal Government has thus far not promulgated any regulations on Bang's disease, whereas forty of the states have taken action and adopted regulations covering this disease in imported cattle as follows: Thirty-two states require a negative blood test, eight states forbid the importation of cattle that are positive to the blood test or aborted, while the remaining eight states have no regulations.

The following Eastern States have promulgated regulations requiring a negative blood test on imported dairy and breeding cattle:

Delaware
Maryland
New Jersey
New York
Ohio
Pennsylvania
Virginia
West Virginia

The livestock regulatory officials of the eight states mentioned are united in the opinion that a negative blood test requirement on imported dairy and breeding cattle is a necessity for the protection of the health of their native herds. While the following named states do not require a negative blood test on imported cattle, they do prohibit the bringing in of animals that have reacted positive to the blood test for Bang's disease or that have aborted: Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island. Vermont has no regulations.

Interstate Regulations

It should be the purpose and duty of a state livestock regulatory organization to procure and enforce laws and regulations that will adequately protect the livestock of the state against the introduction of transmissible diseases from other states. In other words, a state is justified in promulgating and enforcing such regulations that will cause economic livestock production and public health protection by preventing the spread of a disease from one herd to another whether within or from a herd outside of the state.

The states are expending annually, large sums of public funds in preventing and controlling Bang's disease in their native herds. It is false economy and the height of folly, for them to continue these expenditures unless they provide adequate protection against the introduction of Bang's disease from other states.

In a paper read before the United States Livestock Sanitary Association in 1928, our suggested Bang's disease regulations will be found on pages 625 to 627 inclusive of the proceedings of that year's annual meeting. These proposed regulations were the basis for the present Bang's disease regulations on imported cattle and are substantially the same as those adopted by most of the other states.

Pennsylvania Department of Agriculture
BUREAU OF ANIMAL INDUSTRY
Bang Disease Regulation No. 525
Effective June 1, 1932

Under authority of the Act of Assembly approved July 22nd, 1913, P. L. 928, and the amendments and supplements thereto, the Pennsylvania Department of Agriculture, by the Secretary of said Department, hereby declares and establishes and will enforce an Interstate Regulation for the purpose of protecting cattle in Pennsylvania against infection by Bang Disease also known as Bovine Infectious Abortion and Abortion Disease:

Cattle, including calves, (except as herein provided) shall not be brought into Pennsylvania except in accordance with the following regulations:

Cattle that have aborted, or that have been treated with a live culture of Brucella abortus, or that failed to pass a negative blood test, shall be deemed as infected with Bang disease and no cattle so infected shall be brought into Pennsylvania except upon written permit from the Director of the Pennsylvania Bureau of Animal Industry and subject to quarantine upon entry.

Cattle, including calves, (except as herein provided) to be brought into Pennsylvania must come directly from herds that are certified by the proper livestock sanitary official as being free from Bang disease: or must have passed a satisfactory test for Bang disease and found negative within thirty (30) days of entry: Such cattle must be accompanied by a health certificate approved by the proper livestock sanitary official of the State in which the Bang disease test was made and a copy of the certificate shall be forwarded to the Director of the Pennsylvania Bureau of Animal Industry, Harrisburg, Pennsylvania so as to reach Harrisburg before arrival of the cattle at destination. The health certificate shall contain a complete statement of the actual results of the test, description and tag number or registry name and number for identification of each animal tested, names and addresses of the owner, consignor and consignee, date on which blood was tested.

Cattle coming into Pennsylvania under this quarantine rgeulation must also comply with Federal and State tuberculin test regulations.

Cattle, including calves, for immediate slaughter consigned to approved slaughter houses or to the official stock yards at Pittsburgh or Lancaster and cattle of distinctive beef type that are to be used for feeders or stockers are exempt from this Bang disease regulation but must comply with the requirements for tuberculin testing.

The foregoing regulation is approved and adopted this 2nd day of May, 1932, and is established effective June 1, 1932.

Attest:: Pennsylvania Department of Agriculture
T. E. MUNCE, JOHN A. MCSPARRAN,
Director, Bureau of Animal Industry. Secretary of Agriculture.

The weakest feature in these regulations is that they first provide for but a single blood test, and second, make no provision for health history of the herds in which the tested cattle originated. By health history we mean the status of the herd from a previous blood test of all animals in the herd.

A single blood test is not considered sufficient insurance that the animal is free from infection of Bang's disease, yet is a step in the right direction and furnishes a protection in many cases. A more ideal regulation is one that requires all imported dairy and breeding cattle to come from Bang's disease free certified herds. However, in this connection, the standards of certification should be the same in all states. The aim should be to approach this suggested ideal interstate regulation as fast as the conditions in each state will permit.

The 1932 report of the Committee on Bang's disease of the U. S. Livestock Sanitary Association contains the following recommendations:

> a. Bang's disease regulations should apply to all dairy and breeding cattle and those which contact the same with the exception of certain range cattle.
>
> b. Cattle should originate either from Bang's disease free herds or pass a negative agglutination test for Bang's disease within thirty days prior to shipment.

UNIFORM REGULATIONS

Interstate livestock regulations should be uniform one state with others. The effectiveness of a regulation depends largely upon the support it receives from the public. The more concise and clear a regulation is drawn, the easier it is to understand and the better will it be supported by the public. However, in promulgating regulations, it would be bad administration and shortsightedness on the part of a state to make them so drastic and prohibitory as to bring about retaliatory measures by the other states.

Bang's disease is the same disease in each state, and the interests of the owners and general public are or should be similar.

ATTITUDE OF LIVESTOCK OWNERS

The interest among livestock owners in the prevention and control of Bang's disease and establishing Bang's disease free herds, has gone forward faster than was anticipated by even the most enthusiastic and optimistic advocate of this line of work. Many owners for economic reasons are seeking relief from the losses incident to the prevalence of Bang's disease in their herds. Owners are becoming more and more convinced that their only hope lies in the blood test, elimination of reactors, good sanitation and preventive measures.

It is human nature for owners to give first consideration to the health of their herds for financial reasons; it is important, however, that they should also do so for human health reasons. This, on the ground that in addition to the diseases of cattle that are transmitted to humans through diseased food products and direct contact, more and more are coming into use, endocrines made from the endocrine organs of cattle (which cattle should be healthy) in the treatment and prevention of human ailments.

As pointed out, interest in Bang's disease prevention and control on the part of owners is rapidly increasing, yet too many owners continue to be indifferent toward this preventable and wasteful disease. Such indifferent owners instead of seeing to it themselves that the cattle they buy are free from Bang's disease, place this responsibility on the state livestock regulatory officials. Will Rogers spoke the truth in a jest when he said, I quote: "You know the people kinder look on our government to tell 'em and advise 'em." As one Eastern State Livestock Sanitary official has put it, I quote: "Surprising but true; seldom does the average dairyman when buying a cow make inquiry concerning the animal's possibility of having abortion disease." There are many owners who show an interest in the elimination of Bang's disease by way of compromise and soothsaying methods.

Interstate regulations while helpful are not alone the solution for controlling Bang's disease. Owners themselves must give attention to the disease within their own herds.

If more cattle owners and practicing veterinarians would apply the principles and preventive measures which are available for effectively controlling Bang's disease, and some regulatory officials would be less wavering in connection therewith, the necessity for interstate regulations would be materially lessened.

Without the good support of the herd owners, cattle dealers, practicing veterinarians and other participating agencies in preventing and controlling Bang's disease or any other transmissible disease, the task of the regulatory officials is impossible of accomplishment.

CONFIDENCE IS ESSENTIAL

Complete confidence between the states and all others concerned, will accomplish more than any other one thing toward simplifying and unifying interstate regulations. To bring about this complete confidence, all stockmen, dealers, veterinary practitioners and regulatory officials should carry out honestly and efficiently, every phase and detail of the procedure which is theirs to perform in order to breed, raise, sell, transport and otherwise handle healthy animals. When honor, honesty and efficiency become universal among the groups I have mentioned, confidence will replace doubt and suspicion and there will be no necessity of a multiplicity of interstate livestock requirements and no occasion to appeal to courts to nullify state regulations deemed necessary under the prevailing unsatisfactory relationships, misunderstandings and lack of confidence.

CONCLUSIONS

1. The states, especially cattle importing states, have ample justification for promulgating and enforcing necessary regulations to provide adequate protection to their native herds from Bang's disease infection from outside sources.

2. All states should segregate and properly quarantine until slaughtered, all animals that fail to pass a satisfactory blood test for Bang's disease. This practice would be especially advantageous to exporting states. By so doing, they will not only be safeguarding the health of their native herds, but instilling confidence in the minds of the cattle buying public and regulatory officials in the states of destination as well.

3. The lack of uniformity in interstate Bang's disease regulatory requirements is confusing to stockmen, regulatory officials, practicing veterinarians and transportation companies and a hindrance to the control work. It is gratifying to know that this objection is being removed as fast as possible.

4. The states should strengthen their interstate Bang's disease regulations as indicated by existing conditions.

5. The suggested ideal interstate Bang's disease regulation is needed at the present time and the aim of the states should be to approach it as rapidly as conditions in each state will permit.

6. Bang's disease regulations should be adopted primarily for the purpose of preventing and controlling this disease, and should never be prohibitory.

7. Herd certification standards should be the same in the different states if regulations requiring animals to come from certified herds are to become effective in the different states.

8. More herd owners should take greater interest and assume more responsibility in the health of their herds and especially the cattle they buy. Owners themselves are directly and adversely affected in the purchase of diseased cattle. It is bad business and unfair on the part of owners to place all responsibility for the health of their cattle on the livestock regulatory officials.

9. Herd owners and breed associations are now showing greater concern than ever before in interstate regulations for Bang's disease which interest is gratifying to the B. A. I. It is hoped that their interest will be extended to a similar extent at least, to the state wide elimination of Bang's disease in all our native herds. I know of no better place for an owner to display interest in Bang's disease than by inaugurating control and preventive measures in his own herd. The individual owner can if sufficiently interested, more successfully enforce regulations over his own herd than can the state regulatory officials enforce regulations over thousands of herds and on a state wide basis. In other words an owner himself is his best disease control officer. This is supported by the scripture, namely, "The Good Shepherd will protect his flock against danger while the hireling will run away."

10. The livestock regulatory officials should attach more importance than is done in some states to the close supervision of herds, the collecting and testing of blood specimens, careful checking of animals in order to correctly identify those tested and for which certification is to be made and the Bang's health status of herds from which cattle are sold as the result of previous blood tests.

11. There has been a gradual increase among owners, veterinarians and sanitary officials who are convinced that the best procedure for eliminating Bang's disease and maintaining herds free from this disease lies in the blood test, elimination of reactors, good sanitation and preventive measures.

12. The earlier that owners get the fact well fixed in their minds that in dealing with Bang's disease they are dealing with an infectious disease which usually requires drastic and persevering measures to combat, the sooner will their herds be freed from said disease.

13. Honesty, integrity and efficiency on the part of all who participate or enter into the breeding, raising, selling, testing, certifying, or otherwise handling of livestock, makes for confidence between the seller and buyer, also regulatory officials. Confidence in turn is es-

If You Plan to
Build or Remodel...

Write to

The James Manufacturing Co.
ELMIRA, NEW YORK

sential to a healthy and profitable livestock industry and the free movement of livestock between the states and within the state.

14. I have strived to call attention and emphasize certain fundamentals which are essential to the maintenance of healthy herds of cattle and thus profitable breeding and dairy industry. Bang's disease and profit are incompatible in any herd of cattle. Such a combination is contrary to efficiency and profit and will eventually bankrupt the owner.

Aims of the Breed Associations

LEWIS W. MORLEY, *Secretary*

American Jersey Cattle Club

Reference to the early history of the breed associations namely the Ayrshire organized in 1875, the Guernsey in 1883, the Holstein in 1885, and the Jersey in 1868, indicates that the prime, and in some cases the only stated object or aim was to establish and maintain a Herd Book, i. e. the registration of animals, and to keep a permanent record of these registrations.

It was evidently felt by leading breeders representing each group that PURITY of BLOOD was the main and essential thing. Some of the associations did not even arrange for transfer records, when animals were purchased or sold, until they had been established several years.

Between the date of organization and 1890 each association began to give serious thought to improving both the type and production of their respective herds.

Each of the associations at an early date gave much time and discussion to the scale of points or score-card. Throughout the years this topic of conformation has been one which could be counted on to start a hot argument at a moment's notice. It seems fair to assume there has been a decided change in conformation in the past seventy-five years, although it must also be kept in mind that photography has greatly improved during this period.

Shows and exhibitions year after year, for the past seventy-five years have without a doubt been the greatest factor in general conformation change. The conformation of our purebreds today more nearly approaches the ideal as set forth in the scorecard than was the case fifty or seventy-five years ago.

Prof. C. S. Plumb in his "Registry Book on Farm Animals," says, "The subject of milk and butterfat records early began to receive attention in this publication (The Herd Register and Breeders' Journal of the American Guernsey Cattle Club) and in Volume 9 of 1900, a tabulated statement of records of noted Guernsey cows is made. During the fall of 1898 the Guernsey Club offered prizes of $300.00 for the best milk record by a single cow, and in the "Herds of five."

The Guernsey Advanced Registry was established in 1902.

The Advanced Registry of the Holstein-Friesian Association of America was established in 1885, volume one published in 1887 contains a record of all Holstein-Friesian Cattle approved and admitted from January 1, 1886 to January 1, 1887.

The first test work done by the American Jersey Cattle Club was in 1882, but the Register of Merit in its present form was not adopted until 1902. During the period from 1850 to about 1910, the emphasis in all forms of testing was placed on the individual cow.

The cow testing associations which gained great impetus from about 1910, directed attention in a clear forcible way to the value of the records on the whole herd. It was not however, until 1925 that the Ayrshire Association adopted a Herd Test plan.

Now each of the four Breed Associations have Herd Tests and the trend is definitely toward herd testing with individual testing rapidly decreasing. Individual official and semi-official records have without question played a very important role in the improvement of the breeds and must continue to do so. The unmistakable trend however, from the standpoint of the dairyman and breeder is to test the whole herd rather than a few individuals within the breed.

At present each breed association tries to give the greatest possible amount of information regarding the animals tested. Formerly, each association had Register of Merit or Advanced Registry requirements, and the record of any cow failing to make these requirements was not published. Thus, it will be seen that a sire might have twenty daughters listed in the Register of Merit or Advanced Register and an equal number that failed to qualify. In referring to the published records, one could find the twenty daughters with records, but would have no knowledge of the twenty that failed to qualify. He would therefore, have but one-half of the available and valuable information, for it is just as important to know the production of the poor daughters of a sire as it is to know the production of his good daughters. At least, one breed association now publishes all production records whether high or low.

The general problem of evaluating dairy sires has attracted more attention during the past five years than has any other phase of dairying.

The American Jersey Cattle Club has just published a booklet entitled "Tested Sires of the Jersey Breed," that lists all sires having ten or more daughters with production records.

The Holstein Association only last month adopted in a modified form, the Mount Hope Index. This Index is based on the dam-daughter comparisons, six dams' records and six daughters' records being the minimum on which the Index is based.

The breed associations are not satisfied with the average conformation of the animals registered nor are all of the leaders in the various associations satisfied that our score cards for ideal type are perfect. However, two associations have within recent years adopted systems of classification on type.

A number of the state fairs are also adopting "production requirements." Present indications are that there will be continued and increased interest on the part of the breed associations regarding production requirements at our leading shows. The Directors of the American Jersey Cattle Club adopted the following resolution::

> "WHEREAS, The Tennessee Jersey Cattle Club through its statewide production shows of 1930 and 1931, has taken the lead in emphasizing the desirability and the educational value of exhibits where both type and proven production are the basis of prize awards, and
>
> WHEREAS, The Tennessee State Fair has announced that in 1932 it will hold an 'Open to the World' Production Show for Jerseys
>
> BE IT RESOLVED that the American Jersey Cattle Club through its Board of Directors recognizes this plan as a forward-looking movement and of distinct advantage in breed improvement and pledges its cooperation in making such shows a success."

Another logical aim of the breed associations has been to secure greater distribution and larger number of animals of their respective breeds. This aim has been carried on in various forms of promotional activity, including literature, advertising, assistance to judging contests, calf club work and through field or extension work by paid representatives.

The fieldmen carry on a cooperative program of activity with breeders, and agricultural workers within their territories. This work has materially aided in furthering all of the previously mentioned aims of the breed associations.

It is only natural that the economic conditions as they are at present, cause a large number of dairymen to ask themselves whether it is worth while to continue with purebred animals. These people point out that at present there is little increase of price for a registered over an unregistered or grade animal. This is true at the present time, it is also possible if not probable that in the future there may be less difference in the price of a grade animal and a registered animal that has only the registration certificate to recommend her. But it seems quite as certain that the individual who is following a definite system of herd testing and herd improvement will find his animals commanding a premium just as soon as conditions improve.

There is naturally some discussion at present regarding whether or not the associations are charging too high fees. It must be remembered that the fees for registration, transfer and testing are practically the only source of income which the breed associations have. Each organization is studying constantly as to whether fees may be decreased without omitting some specific service which the membership has voted to have the organization carry on.

Several associations have during the past year worked out some method of temporarily lowering the fees. No doubt more of this will be done in the immediate future.

A study of the breed associations as they have operated in the United States during the past seventy-five years convinces one that their aims have been toward continuous improvement of the purebreds.

Every organization regardless of its nature is receiving more or less criticism at this time, nor are the breed associations free from criticism. It should be kept in mind, however, that should the present organizations for any reason cease to function we should immediately need new organizations with essentially the same aims as our present breed associations.

Unquestionably errors have been made but they were made because of lack of information instead of a desire to impede progress.

There is at this time a very definite trend on the part of dairymen to neglect those things which are of unquestioned importance in breed improvement. A larger percentage of inferior sires are being used today than in former times even though outstanding sires may be secured at exceptionally low prices. Dairymen are, in greater numbers, breeding a sire back to his own daughters, a practice which may at times be followed with high production animals but is sure to bring disappointment when mediocre or fair animals are mated.

It is also evident that many breeders and dairymen who ordinarily keep their registrations up to date are at this time not only neglecting registration but what is even more serious, they are neglecting to keep the fundamental data necessary to register these animals when conditions improve. Breeders would do well to make out applications for all unregistered animals and send such applications to their associations for checking, even though the fees cannot be paid at the moment. The associations could check the applications and let the breeder know if they were not in proper form.

I am confident that the other national breed associations like our own welcome at all times suggestions or constructive criticism from breeders and agricultural workers. Let us continue the work together not only to increase the production of our purebreds but what is perhaps of more importance, the increased production of all our dairy cattle.

In our plans for our dairy operations, let us take the slogan "In times of depression, prepare for prosperity."

Today more than ever before, a dairyman must use mighty sound judgment. He must have the right cows. He must keep tab on them. He must use the right feed . . . feed that will make him money. Purina Dairy Chows do that job. They help your cows make more milk at less cost.

What's more, Purina Dairy Chows are surprisingly low priced today. They're a real bargain in saving you money and making you money. See your Purina dealer today.

Purina Mills, St. Louis, Mo.

MAKE MONEY !

HERE ARE TEN GOOD REASONS FOR CHOOSING AYRSHIRES:

1. **Ayrshires Are Heaviest Producers of 4% Milk.** Tested in Dairy Herd Improvement Associations and under the Ayrshire Herd Test plan hundreds of herd records have been made, showing that under good farmer care Aryshire herds may be depended upon to annually produce from 8,000 to 10,500 lbs. of 4% milk per cow.
2. **Ayrshires Make the Most 4% Milk at Lowest Feed Cost.** Official records of feed costs reveal that no breed can equal the Ayrshire in economy of milk production. Ayrshires use the maximum amount of roughage; feed costs have been officially reported as low as 80 cents per 100 pounds of milk.
3. **Ayrshires Are the Best of Rustlers and Ideal Grazers.**
4. **Ayrshire Milk is Ideal.**
5. **Ayrshire Udders Are Shapely and Well Balanced.**
6. **Ayrshires Are Uniform in Type.**
7. **Ayrshires Make Good Beef**
8. **Ayrshires Are Hardy.**
9. **Ayrshire Bulls Cross Well With Grade Cows.**
10. **You Will Like Ayrshires.**

AND THAT ISN'T ALL

Pennsylvania Ayrshire Breeders invite you to inspect their herds now on yearly test under the rules of the Ayrshire Herd Test plan. See their herds of uniformly good cows, kept under normal breeding herd conditions, making the world's greatest five and six year herd records.

For Further Information Write

Ayrshire Breeders' Association
BRANDON, VERMONT

Annual Business Meeting

The annual business meeting was held January 19, 1933 in Room F, State Show building, Harrisburg, Pennsylvania, President Dr. E. S. Deubler presiding.

The minutes of the preceding meeting were read and approved.

The Treasurer's report, showing a balance of $16.18 was given and accepted. The Treasurer's accounts were audited by Oakley S. Havens, Charles E. Cowan, and F. P. Willitts.

The following officers were elected for the ensuing year:

President—Dr. E. S. Deubler	Narberth, Pa.
First Vice-President—George W. Slocum	Milton, Pa.
Second Vice-President—Albert B. Craig	Sewickley, Pa.
Third Vice-President—J. A. Poorbaugh	York, Pa.
Secretary-Treasurer—C. R. Gearhart	State College, Pa.
Assistant Secretary—F. M. Twining	Philadelphia, Pa.

The resolutions committee, E. A. Stanford, J. N. Rosenberger, C. A. Grimes, presented the following resolutions:

RESOLUTIONS—1933

BANG RESOLUTION

WHEREAS: Dairy cattle infected with Bang Disease (Bovine Infectious Abortion) are carriers of an infection and communicable disease, annually causing the greatest loss to dairymen of this Commonwealth, and threatening the health of all cattle supplying milk for the citizens of Pennsylvania.

THEREFORE BE IT RESOLVED: that the Pennsylvania Dairymen's Association commend the Pennsylvania Bureau of Animal Industry for their action in protecting the Dairymen of this State, and

BE IT FURTHER RESOLVED: Pennsylvania Dairymen's Association recommend that the Pennsylvania Bureau of Animal Industry furnish further protection to the Dairy Industry by requiring all animals from other states or countries not coming from Bang Disease free-certified herds, intended for dairy or breeding purposes, to be blood tested before entering the State, quarantined for 60 days for retest, pregnant animals must be allowed to calve and pass a negative test not sooner than two weeks after calving. The retest shall be made or approved by the Pennsylvania Bureau of Animal Industry Laboratory.

The Resolution Committee recommended that a Committee be appointed to give this resolution further consideration. PASSED. The President appointed the following committee: Dr. J. N. Rosenberger, Ray Arnold, Emil Oleson.

DAIRY INSPECTION

WHEREAS: The increasing confusion and complaints with the interpretations and enforcement by the division of Milk Control, Pennsylvania Department of Health is threatening the repeal of the whole milk law or serious amendments thereto—

BE IT RESOLVED: that the Pennsylvania Dairymen's Association recommend as a means of settling differences of opinions and to secure valuable information possessed by producers of milk and information concerning Health of cattle possessed by Veterinarians, that a representative Milk producer and a veterinarian be appointed to the Board of Health.

The Resolution Committee recommended that a committee be appointed to give this resolution further consideration. PASSED. Committee appointed: E. A. Stanford, A. A. Borland, C. G. Dietrick.

RESOLUTION PRESENTED BY DR. L. M. THOMPSON

WHEREAS: Registered cattle are now entering the United States without duty and the difference of exchange between the United States and Canada permit Canadian Cattle to compete with our own cattle to the disadvantage of breeders in the United States, therefore be it:

RESOLVED that the Pennsylvania Dairymen's Association request the proper authorities to establish a tariff on registered cattle at least equal to the difference in exchange existing between the United States and the Country of origin of imported cattle.

Dr. L. M. Thompson recommended its adoption. PASSED. Committee appointed to look after this resolution: A. B. Craig and Dr. L. M. Thompson.

TARIFF

WHEREAS: The difference in the exchange value injures the American Breeder of Purebred Cattle and aids in glutting the American market with dairy products and further depresses prices—

THEREFORE BE IT RESOLVED: that the Pennsylvania Dairymen's Association use its utmost influence in Congress to have a duty equal to the difference in exchange rate enacted into law for the protection of the American Dairy Industry.

The Resolution Committee recommended that a committee be appointed to give this Resolution further consideration. PASSED. Committee appointed: A. B. Craig and Dr. L. M. Thompson.

INDEMNITY

WHEREAS: State Indemnity for the further eradicating of Tuberculosis in the Commonwealth of Pennsylvania is needed to continue the constructive work of eradicating this dreaded plague of man and beast.

BE IT RESOLVED that the Pennsylvania Dairymen's Association commend both Governor Pinchot and Secretary of Agriculture John A. McSparren for placing two million dollars in the budget for continuing the eradication of Tuberculosis and—

THEREFORE BE IT FURTHER RESOLVED: that the Pennsylvania Dairymen's Association use its utmost influence with members of the Legislature to have two million dollars appropriated for eradicating Tuberculosis.

The Committee recommended the adoption of this resolution.
PASSED.

CATTLE EXHIBITORS

WHEREAS: Some Exhibitors of cattle are opposed to Calf Club Calves competing for prizes in open classes.

THEREFORE BE IT RESOLVED: that the Pennsylvania Dairymen's Association commend the Show Committee for its present method of handling this matter and recommend Calf Club Calves be allowed to continue to enter open classes and compete for prizes.

The committee recommended the adoption of this resolution.
PASSED.

There being no further business, the meeting adjourned and the educational meeting continued.

Increase Premiums with
FRIGIDAIRE

Higher premiums on every gallon of milk you sell! A bacteria count lower than you have ever known before—so low it will astonish you. That is what Frigidaire's Milk Cooling Equipment can do for you. Frigidaire, due to its two-cylinder superpower compressor, has exceptional ability to cool milk quickly.

Dairymen realize what this superior service means in increased premiums. Frigidaire cooling is labor saving and less costly than other types of refrigeration. A letter to us will bring you the complete facts.

J. J. POCOCK, Inc.
1920-22 Chestnut Street
PHILADELPHIA

EIGHTH ANNUAL BANQUET

Pennsylvania Dairymen's Association

Fifth Street Methodist Church
HARRISBURG, PA.

Wednesday, January 18, 1933

DR. E. S. DEUBLER, *Toastmaster*

ADDRESSES BY

HON. GIFFORD PINCHOT
Governor of Pennsylvania

HON. JOHN A. McSPARREN
Secretary of Agriculture of Pennsylvania

DR. RALPH DORN HETZEL
President, The Pennsylvania State College

HERD TEST AWARDS

MILK AWARDS

ENTERTAINMENT
Fifth Street Methodist Church Orchestra
Rev. and Mrs. Dorsey Miller Paul I. Horst, Novelty Artist

MERIT AWARDS

Presented at the Banquet

Trophies awarded at the Pennsylvania Dairymen's Association banquet, January 19, 1933, in Dairy Herd Improvement Association work, Herd Test work, and Register of Merit work.

By the Pennsylvania Federation of Holstein Clubs:

A loving cup to A. C. Slifer, Lewisburg, Pa.
High D. H. I. A. herd—lbs. milk 14,569; lbs. fat 538.8.

By the Pennsylvania Jersey Cattle Club:

A model cow to Mercer Sanitorium, Mercer, Pa.
High D. H. I. A. herd—lbs. milk 9541; lbs. fat 529.8.

A model cow to Estate of W. L. Glatfelter, Spring Grove, Pa.
High R. of M. cow—lbs. milk 14,105; lbs. fat 853.7.

A model cow to Mercer Sanitorium, Mercer, Pa.
High D. H. I. A. cow—lbs. milk 11,093; lbs. fat 695.8.

By the Pennsylvania Guernsey Breeders' Association:

A cream jug to Farmhill Dairy, Sewickley, Pa.
High D. H. I. A. herd—lbs. milk 8893; lbs. fat 449.1.

By the National Ayrshire Breeders' Association:

A trophy to James Dayhoss, Waynesboro, Pa.
High D. H. I. A. herd—lbs. milk 9860; lbs. fat 413.0.

A trophy to Mrs. E. R. Fritsche, Douglassville, Pa.
High herd in herd test—lbs. milk 10,808; lbs. fat 447.7.

A trophy to National Farm School, Doylestown, Pa.
Second high herd in herd test—lbs. milk 10,494; lbs. fat 430.4.

By the Pennsylvania Brown Swiss Breeders' Association:

A set of three tuned Swiss bells to Miss Irma C. Wohlwend, Salina, Pa.
High D. H. I. A. herd—lbs. milk 10,162; lbs. fat 400.1.

THE MILK SHOW

The Milk Show awarded 77 prizes this year besides 13 certificates of merit for milk scoring over 95.9. Special awards for high scores were as follows:

By the Pennsylvania Guernsey Breeders' Association, a silver cream pitcher to Earnest Ritter of Winfield, Snyder Co., whose milk from a registered Guernsey herd scored 96.3.

By the Pennsylvania Guernsey Breeders' Association, a silver cream pitcher to Norman C. Maule of Quarryville, Lancaster Co., whose milk from a grade Guernsey herd scored 96.6.

By the Pennsylvania Jersey Breeders' Association, a silver loving cup, to Clyde Houck of Clymer, Indiana Co., whose milk from a registered Jersey herd scored 96.3.

By the Pennsylvania Federation of Holstein-Friesian Clubs, a silver pitcher, to Ivan G. Martin, of Ephrata, Lancaster Co., whose milk from a registered Holstein herd scored 93.4.

By the Pennsylvania Ayrshire Breeders' Association, a silver pitcher, to Terrace Farm of Titusville, Crawford Co., whose milk from a registered Ayrshire herd scored 94.2.

By the Philadelphia Dairy Council, a silver milk pitcher to Norman C. Maule of Quarryville, Lancaster Co.

By the Pittsburgh Dairy Council, a mantel clock to Clyde Houck of Clymer, Indiana Co.

* * *

Dairy Herd Improvement Association Herd Honor Roll, 1932

Each Dairy Herd Improvement Association member whose herd average production was 300 pounds or more of butterfat during 1932 was placed on the honor roll and given a prize ribbon by the Pennsylvania Dairymen's Association. Nine hundred seventy-nine herds qualified for this honor. The awards were divided into three groups according to amount of production; 569 red ribbons were awarded for herd averages between 300 and 350 pounds of butterfat; 292 blue ribbons for averages between 350 and 400 pounds of butterfat; and 118 purple ribbons for averages above 400 pounds of butterfat. Following is a list of these members arranged according to association membership and production average:

ADAMS COUNTY—(Adams Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
R. M. Spangler	Gettysburg	9.39	R:GH	12104	416.9
John C. Bream	Gettysburg	11.86	RH	11048	384.5
Geo. E. Motter	Littlestown	19.89	R:GH	10159	361.8
Edgar Leer	York Springs	18.95	R:GH	9820	341.5
H. E. Brown	Fairfield	13.95	R:GH	9154	311.0
A. B. C. Williams	York Springs	10.09	R:GH	9322	305.0
Roy Weaner	Gettysburg	12.02	R:GH	9425	303.1

ALLEGHENY COUNTY—(Elizabeth Association)

E. B. Douglass	Elizabeth	5.00	RG:RH	11078	448.4
F. L. McKinney	Elizabeth	17.05	RG:RH	8475	347.9
Silver Maples Dairy	McKeesport	32.63	RG	6261	311.7
J. D. Guffey	Elizabeth	20.31	RH	8687	307.5
Henry Hoffmeister	Monongahela	16.19	R:GH: Mixed	8227	301.4

ALLEGHENY COUNTY—(Allegheny Association)

Farmhill Dairy	Sewickley	12.50	RG	8893	449.1
Robt. Bamford & Son	Midway	23.08	RJ	8087	419.4
Dundee Farm	Sewickley	6.35	RG	8711	408.9
Fairacres Farm	Sewickley	15.75	RG	8601	401.5
J. F. Byers	Sewickley	5.72	RG	7950	392.7
Allegheny Co. Home	Woodville	97.80	RH	11135	371.2
H. N. Van Vhooris	Sewickley	8.20	RG	7807	350.3
Bell Brothers	Imperial	15.89	RH	10678	346.0
J. H. Wilson & Sons	Clinton	13.31	RH	9994	339.1
R. M. Donaldson	Midway	24.14	RA	8469	338.1
Guy A. McWreath	McDonald, R. 1	15.78	RH	9905	324.0
Craola Farm, Inc.	Clinton, R. D.	15.09	RH	9557	323.3

ARMSTRONG COUNTY—(Armstrong Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Andley Hileman	Ford City, R. 1	12.37	R:GH	10872	376.0
Frank Bowser	Worthington, R. 2	13.34	R:GH	10449	374.1
R. D. Marshall	Byer	37.73	R:GH	10060	343.5
J. T. Iseman	Ford City, R. 1	11.90	Mixed	9659	341.6
Harry Koenig	Tarentum, R. 1	15.35	R:GH: GG	10014	326.1
C. B. McNees & J. F. Shaffer	Kittanning	8.13	RG	6706	323.9
H. S. Hogg	Worthington, R. 2	13.43	GH:GG	7314	311.3

BEDFORD COUNTY—(Bedford Association)

John E. Morris	Everett, R. D.	7.46	RJ	9276	511.4
Francis Baker	Everett	15.13	R:GJ	8050	435.4
John Baughman	Everett, R. 4	7.46	RJ	7766	433.0
Fred W. Cox	Everett	20.00	RJ	7504	393.0
McKinley Woy	Everett, R. 5	7.75	R:GG	7882	391.1
Allen Eshelman	Everett, R. 3	14.45	RJ	7702	388.4
Stanley Koontz	Bedford, R. 4	28.02	RJ	7182	367.8
Carl Garland	Buffalo Mills	14.84	R:GH:J	9471	356.0
C. E. Koontz & Son	Lutzville	15.80	R:GJ	6675	349.6
Alex E. Moore	Pittsburgh	11.92	P:GJ	6040	342.4
Falklands	Schellburg	54.68	RJ	6421	336.1
Ralph Rhoades	Saxton	15.58	Mixed	8023	333.7
S. L. Cessna	Bedford, R. 4	17.98	R:PH	9496	328.6
J. Ed. Miller & Sons	Midland, Md.	18.68	R:GH	8567	311.1
Earl Jackson	Akersville	8.79	GG:Mixed	5804	309.6
C. E. Llewellyn	Midland, Md.	19.75	R:GH	8367	304.2
Walter Bowman	Clearville	6.84	R:GJ	5927	301.1

BERKS COUNTY—(Northern Berks Association)

Raymond Delong	Bowers	25.43	RG	7644	361.1
Walter George	Lenhartsville	14.21	RH	10301	341.4
Floyd Merkel	Hamburg	15.54	R:GH	9175	328.4
George Hamm	Kempton, R. 2	17.07	R:GH	9943	325.1
David Moll	Hamburg	22.40	R:GH	9688	324.1
Paul R. Kohler	Hamburg, R. 1	23.30	R:GH	9981	322.9
Herbert Seidel	Virginville	18.28	RA	7830	321.3
Oscar Spayd	Lititz, R. 1	12.30	R:GG	6853	315.2
Harry Anthony	Strausstown	20.87	Mixed	8884	308.5
John Kalbach	Hamburg	23.90	RH	9107	307.7

BERKS COUNTY—(Western Berks Association)

Anthony Bunisk	Oley	16.57	R:GH	13.155	450.0
Charles Ritzman	Sinking Springs	18.98	R:GH	10699	361.8
Jonathan Bickel	Myerstown, R. 1	9.00	RH	10360	351.0
Adam Fasig	Reading, R. 2	13.66	RA	7803	327.9
Charles Riegel	Sinking Springs	26.81	R:GH	9360	315.7
Ammon Schmeck	Sinking Springs	20.70	R:GH	9194	314.6
State Hospital	Wernersville	65.18	GH	10510	362.7
Tulpehocken Farms) St. Lawrence Dairy)	Reading	19.74	GH	9383	300.7

BERKS COUNTY—(Central Berks Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Howard Koenig	Centerport	17.92	G:R:GH	11135	403.9
Harvey Mathias	Bernville, R. 1	13.92	R:GH Mixed	10020	359.8
Walter Spatz	Bernville	13.17	R:GH	9968	354.2
Henry Phillips	Mohrsville	14.10	R:GG	7101	333.0
Martin Wolfskill	Bernville, R. 2	22.33	GH	9142	323.0
William H. Schlappich	Bernville, R. 2	11.01	GH:G	8466	321.2
Adam S. Reber	Centerport	9.26	GG	6588	311.1
John Balthaser	Mohrsville, R. 1	35.84	R:GH	8541	303.9
Adam H. Faust	West Leesport	13.43	Mixed	7862	301.7

BLAIR COUNTY—(Blair Association)

J. M. Delozier	Hollidaysburg, R.D.	11.00	RBS	9699	390.1
K. S. Bagshaw	Hollidaysburg, R.D.	12.16	RBS	9050	378.8
Emory Sollenberger	Williamsburg, R.D.	7.89	RH:GG	9625	351.0
Hon. M. D. Patterson	Hollidaysburg	13.61	R:GG	7561	346.4
Herbert Bridenbaugh	Martinsburg, R.D.	25.50	Mixed	7580	337.5
T. D. Horton	Williamsburg, R.D.	16.17	R:GH: Mixed	8638	337.3
Preston C. Smith	Martinsburg, R.D.	10.13	R:GH	9351	336.9
Alva R. Long	Portage, R.D.	19.40	RG	6977	332.0
Oliver C. Ritchey	Martinsburg, R.D.	29.19	R:GH: Mixed	8540	328.9
Miles C. Bagshaw	Hollidaysburg, R.D.	12.30	R:GBS	7772	324.8
Thurman Hileman	Hollidaysburg, R.D.	17.55	Mixed	7573	322.1
John Lloyd, Jr.	Hollidaysburg, R.D.	29.75	R:GG	6222	315.6
G. Clair Smith	Martinsburg, R.D.	16.23	R:GH	8611	314.1

BRADFORD COUNTY—(Troy Association)

H. H. Packard	Alba	9.43	RH	9816	360.6
Ben Ballard	Troy	15.75	RH	10469	351.0
B. J. Parmenter	Columbia X Roads	11.89	RH	9400	324.4
Lloyd Wolfe & Son	Troy	8.98	RJ	5741	315.8
Glenn Noble	Gillett	30.84	RJ	5782	312.9
H. B. Wilcox & Son	Milan	12.08	R:GJ:Mix	5925	311.2
Henry Queal	Gillett	7.66	R:GG	6062	311.1
Elery Beach & Son	Columbia X Roads	17.05	RH	8552	304.2

BRADFORD COUNTY—(Canton Association)

R. G. Williams & Sons	Canton	12.00	RH	11342	401.1
R. H. Fleming	Alba	21.26	RH	10635	391.1
John L. Brackman	Canton	16.71	GG	8036	388.4
T. M. Watts	Canton	20.05	R:GH	10215	383.4
H. F. Metzger	Canton	24.49	GJ	7796	381.0
Clarence Spencer	Canton	16.20	GH	9379	350.0
John E. Preston	Grover	12.42	Mixed	9603	346.6
J. C. Fleming	Granville Summit	9.57	RG	6891	339.2
L. P. Fairchilds	Canton	20.65	GJ	6771	328.8
Earl Wilcox	Canton	10.69	GH	8498	325.9
W. R. Wright	Canton	17.91	RG	6757	319.4
W. F. Bohlayer	Canton	17.96	RH	8475	317.9
Quay Ward	Leolyn	14.73	R:GH	8027	307.3
Niles Packard	Canton	13.48	R:GH	8439	307.0
Charles Bedford	Canton	16.29	Mixed	7433	305.9
D. U. Austin	Granville Summit	13.45	R:GH:G	8183	302.3

BRADFORD COUNTY—(Ulster Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
L. A. Harris	Milan	11.59	RJ	6710	395.4
H. G. Von Wolffredt	Athens	17.63	RJ	7146	381.0
Harry Layman	Ulster	14.40	P:GH	10698	377.6
F. O. Wright	Milan	22.15	R:GJ	6434	349.1
G. E. Ballentine	Milan	9.08	RJ	6592	348.0
C. J. Breese	Ulster	14.36	RJ	6209	317.6

BRADFORD COUNTY—(LeRaysville Association)

W. I. Pierce	Columbia X Roads	18.80	R:GH:G	10514	383.1
H. W. Russell	Orwell	14.05	R:GH	9973	373.2
Claude S. Gorham	LeRaysville	24.13	RJ	6485	365.2
M. B. Chilson	Nichols, N. Y.	11.96	R:GH	9581	341.0
Olyn Johnson	LeRaysville	17.59	R:PH	9773	321.4
Howel Powell & Son	Stevensville	9.59	R:GH:J	8575	320.9
C. W. Ford	Rome	12.02	R:GH:J	8610	313.2
Jas. E. Eastman	Rome	5.52	RH	8054	304.1

BRADFORD COUNTY—(Wyalusing Association)

Karl D. Shiner	Towanda	19.33	R:GJ	7600	373.5
Taylor McCarty	Sugar Run	14.27	RH	9887	356.2
F. B. & S. H. Kerrick	Towanda	21.04	RH	9887	352.9
Mark C. Hagerman	Towanda	16.93	R:GH	9915	349.1
Welbec Farms	Wyalusing	36.71	R:GG:Mix	7334	338.4
E. M. Miller	Towanda	16.30	RH	9864	335.7
J. W. Adams	Sugar Run	9.01	P:GH	9303	317.9
F. J. Kingsley	Wysox	10.89	RH	8469	313.8
Thomas E. Stevens	Towanda	14.12	R:GH	8375	307.3
C. B. Culver	Laceyville	30.64	R:GH	8826	301.4

BRADFORD COUNTY—(Laurel Hill Association)

Chas. Chaffee	Ulster	16.03	R:GH	10827	375.9
F. W. Gorham	Wysox	17.93	RH	10503	370.8
Wm. L. Pruyne	Milan	21.03	RH	10126	361.2
Edwin Lent	Wysox	9.00	RH	10395	352.4
R. B. Arnold	Milan	26.34	RH	8755	323.7
I. P. Chaffee	Towanda	19.58	R:GJ	5866	314.9

BUCKS COUNTY—(Bucks No. 1 Association)

Lewis Duerr, Jr.	Langhorne	14.84	R:GH	12663	425.0
Amos Satterthwaite	Yardley	14.83	RH	11762	390.3
Willard W. Wright	Yardley	13.29	R:GH	11402	384.2
M. C. Satterthwaite	Woodside	12.64	RH	10477	362.9
Bolton Farm	Bristol	34.28	RG	7024	361.2
Philip W. Smith	New Hope	27.80	R:GG	7329	360.6
J. P. Canby & Son	Hulmeville	36.51	RH	9722	350.1
L. P. Satterthwaite	Newtown	21.32	R:GH	9799	346.9
George S. Havens	New Hope	9.95	RG	6857	339.7
W. S. Torbert	Newtown	20.25	R:GG	6924	338.9
Henry C. Pickering	Woodburn	9.20	R:GG R:GH	8210	331.1
H. W. Waterman	Newtown, R. 1	14.58	R:GH	9443	330.4
Charles A. Rowe	Yardley	13.46	RH	9827	322.5
William H. Yerkes	Buckingham	13.92	RH	9848	317.8
Jos. S. Briggs	Yardley	19.05	R:GG	6655	311.7
M. Hubert Walton	New Hope	12.22	R:GG	6238	309.6
Williams & Harley	New Hope	20.89	R:GG:GH	6842	305.4

BUCKS COUNTY—(Bucks No. 2 Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
J. W. Hallowell	Ivyland	16.71	R:GH: Mixed	12965	465.0
W. M. Hunsberger	Plumsteadville	15.66	RH	11989	413.6
Homer Wentz	Quakertown	16.92	R:GH	11601	411.4
R. I. Unangst	Kintnersville	15.25	R:GH: Mixed	11294	405.0
Lloyd Sassaman	Bedminster	14.00	R:GH	11751	401.4
Claude Myers	Plumsteadville	18.11	R:GG	7616	381.0
J. Howard Cliffe	Ivyland	7.33	R:GH	8849	379.0
Ernest Foellner	Ottsville	20.00	R:GH	10267	364.2
J. A. Shelly	Fountainville	14.28	GG	7050	348.1
C. H. Smith & Son	Wycombe	17.95	RG	6739	339.6
H. A. Bishop	Perkasie, R. 3	14.44	RH	9983	335.0
Fred Neamond	Richlandtown	14.11	RH	9552	334.9
W. A. Twining	Wycombe	10.50	RH	9748	329.6
F. W. Oehrle	Hatboro	15.98	RH	9795	327.8
Alvin Worthington	Newtown	13.96	R:GG	7076	324.3
C. L. Wilkinson	Rushland	13.94	RH	9259	312.1
J. L. Stover	Ivyland	14.24	RH	8624	308.6
A. S. Mumbauer	Quakertown	11.28	RA	7351	306.1
W. F. Flack	Jamison	14.67	Mixed	8011	303.3
H. Warner Hallowell	Ivyland	8.39	R:GH	9278	301.4

BUTLER COUNTY—(Butler Association)

E. S. Cooper	Slippery Rock	14.60	RG	7663	393.7
C. F. Edgar	Renfrew	11.12	RG	7909	381.7
C. L. Moore	Slippery Rock	14.94	R:GG	7102	370.6
John Schiever	Harmony	26.30	R:GH:Mix	9811	365.8
C. R. Hartzell	Renfrew	6.70	R:GG	7206	357.5
V. T. Fisher	Portersville	12.07	R:GG	7496	356.1
C. A. Wachsmuth	Butler	9.86	RG	7230	354.9
R. S. Cain	Saxonburg	6.57	R:GH	9096	353.1
R. N. Dickey	Slippery Rock	9.84	R:GG	7657	348.2
C. I. Davison	Evans City	8.41	R:GG	7671	347.3
Clyde Peffer	Portersville	6.29	RG	7017	342.8
Henry Reefer	Zelienople	8.00	RG	6598	332.8
Ira Cleland	Portersville	12.67	RJ	6676	332.1
W. W. Vandivort	Zelienople	5.67	RG	6258	326.3
Paul Blair	Renfrew	8.16	RG	6389	316.9
Voorus & Lutz	Harrisville	8.60	GH:J	6323	314.8
Thomas Cooper & Son	Euclid	23.84	PJ	5819	314.7
J. C. Belles & Sons	Harmony	16.07	RH	9422	312.5
A. J. Lang	Cabot	14.27	RH	9617	309.3
E. F. Redfoot	Harrisville	17.97	GJ	5542	307.0

CENTRE COUNTY—(Centre County No. 1 Association)

S. I. Corl	State College	8.54	RH	12967	462.0
Peters Brothers	Port Matilda	11.81	RH	12330	440.7
Western Penitentiary	Bellefonte	80.95	R:GH	13132	441.1
T. C. Kryder	Mill Hall	12.65	RH	11136	380.3
L. R. McGill	Mackeyville	12.62	R:GH	9754	348.1
Hartle Brothers	Bellefonte	14.06	RH	10069	345.2
Fred Davidson	Warriors Mark	7.96	Mixed	7886	330.1
Lowden Kyle	Mackeyville	8.40	R:GH	8675	315.5

CENTRE COUNTY—(Centre County No. 2 Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
J. Fred Slack	Centre Hall	8.83	RH	10359	360.3
W. F. Rishel	Centre Hall	13.55	RH	10823	353.4
S. F. Esterline	Greenburr	10.75	RJ	6275	325.9
H. V. Proctor	Hammersley Fork	15.46	RG	6993	322.3
Frank E. MacIntire	Rebersburg	19.17	R:GH	8616	313.3
O. R. Gilmore	Salona	14.72	Mixed	8044	310.2
Huyett & Luse	Centre Hall	15.20	R:GH	8807	305.9

CENTRAL PENNSYLVANIA GUERNSEY BREEDERS' ASSOCIATION

E. Paul Hoover	Patton	14.23	RGG:H	8661	417.9
J. W. Burket	Tyrone	12.24	R:GG	8559	398.2
Knarr Bros.	DuBois	36.85	RG	8081	395.9
Mrs. C. M. Schwab	Loretto, Herd No. 2	28.08	PG:GG	7574	386.1
S. H. Markey	Loysburg	9.22	RG	7993	368.0
Griffith Estate	Ebensburg	23.49	RG	7479	366.7
Mrs. C. M. Schwab	Loretto, Herd No. 1	18.84	RG	6800	364.9
August Farabaugh	Loretto	5.94	R:GG	7293	355.1
Victor Kline	Hastings	9.03	R:GG:Mix	7274	344.4
W. J. Karlheim	Dysart	10.83	R:GG	6459	339.3
D. A. Morrow	Tyrone	11.67	RG	7057	339.1
The William Irvin Co.	Big Run	23.71	R:GG	6820	332.8
A. J. Yahner	Patton	10.92	PJ	5867	328.6
S. B. Wasson	State College	21.87	R:GG	6343	318.2
Russell J. Edwards	Ebensburg	14.94	GG:Mixed	6652	304.6
J. E. Hindman	Tyrone	21.41	RG	6191	302.0

CHESTER COUNTY—(Chester Valley Association)

Brandywine Md. Farm	West Chester	29.63	Mixed	8879	391.3
G. F. Beale	Lincoln University	13.65	RJ	7653	383.4
Frank A. Keen	West Chester	24.73	RH	10608	363.6
John Kent Kane	Glen Loch	43.15	RG:GG	7687	356.6
G. Cadwalader	West Chester	18.39	GG	7722	348.9
James Speirs	Downingtown	19.13	RJ	6660	334.1
Joseph Bicking	Whitford	21.53	RG:GG	6927	314.5
Richard L. Fox	Downingtown	22.89	RG:GG	6427	311.6
Oswald B. Piel	Downingtown	20.19	RJ	5943	309.2
Dr. Clyde L. King	West Chester	19.43	RJ	5912	304.8
Thomas & Howell	Whitford	47.56	RG:GG	6385	300.2

CHESTER COUNTY—(Coventry Association)

Pennhurst State School	Pennhurst	93.47	GH	13239	440.4
William M. High	Phoenixville, R. 4	15.48	RH	11864	406.7
H. L. Stoltzfus	Pottstown, R. 2	14.10	RH	11315	397.1
Furman Gyger	Kimberton	28.83	RH: Mix	9960	389.6
Montcalm Farms	Phoenixville, R. 3	36.99	R:GG	6956	373.2
Owen Roberts	Kimberton	13.02	RG	7624	369.3
H. J. Bichel	Pottstown, R. 3	17.73	RH:G	10066	351.6
Rose Way Farms	Paoli	31.53	RJ	6558	339.8
H. R. Swaveley	Pottstown	21.52	GH:GG	8529	318.4
Valley Hill Farm	Phoenixville, R. 3	45.24	GG	6888	315.9
Arthur High	Pottstown, R. 3	18.66	H	8822	310.6
L. Major & Son	Royersford	23.14	GG	6440	302.6

CHESTER COUNTY—(Oxford Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
H. S. Gatchell	Peach Bottom	16.96	RJ	7262	405.2
Caleb Chambers & Son	West Grove	15.75	R:GJ	7293	403.4
George Cullen	Elkview	25.85	R:GG	7861	391.0
D. L. Gallagher	Peach Bottom	20.90	R:GG	7502	368.5
P. S. duPont	Kenneth Square	45.52	RG	6900	357.5
R. E. Sharpless	London Grove	36.08	GJ	7404	355.4
Thomas Sloan	Oxford	19.06	R:GH: Mixed	9751	350.9
Reed & Dickey	Oxford	8.98	RH:J	9256	344.2
Edward B. Walton	London Grove	31.02	RJ	6751	340.3
Ira Copeland	Coatesville, R. 4	23.08	PH:Mix	9567	338.8
Ross C. Ulrich	Peach Bottom, R. 2	24.96	R:GJ	6657	334.9
Allen Dubble	Peach Bottom	12.10	RJ	6098	312.6
Lewis Brown	Nottingham, R. 3	15.72	R:GH: Mixed	8601	311.7
Scott Bunting	Oxford, R. 3	19.49	RJ	6012	310.9
Edgar Haines	West Grove	21.11	GG	6451	301.6
Conner & Killinger	Avondale	39.20	RJ	5583	300.0

CHESTER COUNTY—(West Chester Association)

Miss Grace Ryder	Berwyn, No. 97	6.99	RG	8684	418.0
Delaware County Home	Lima	19.33	GH	11090	412.1
Dunwoody Home Farm	Newton Square	16.61	RA	9363	391.4
William I. Reeves	Marshallton	14.11	GG	7893	391.4
Mrs. Chas. P. Davis	Berwyn	11.70	PG	7069	347.2
Clark H. Reed	West Chester, R. 1	7.76	PG	6955	343.9
Ernest T. Trigg	Malvern	31.14	RJ	7249	337.4
Lawrence Folchman	West Chester, R	26.49	R:GH	9446	330.0
William P. Smedley	Media	35.72	R:GG	6907	326.9
Westtown School	Westtown	53.31	Mixed	8522	325.0
M. L. Jones	Westtown	137.66	R:GH	9293	320.8
Leroy Harvey Estate	West Chester	18.16	RG	6807	316.8
Norman W. Frank	West Chester	22.39	Mixed	8477	309.2
A. J. McCue	Avondale	22.10	GG:J	6243	300.0

CLARION COUNTY—(Clarion Association)

R. L. Fleming	New Bethlehem	11.30	RG	7622	400.0
F. L. Stahlman	New Bethlehem	5.60	R:GG	7376	388.2
J. P. C. King	Summerville	8.51	RH	10214	380.3
Ray Shook	Sligo	15.12	R:GG	7445	367.4
H. G. Mahle	Miola	7.92	R:GG	6707	367.1
J. W. M. Gruber & Son	Shippenville	30.69	R:PG	7380	362.3
Foxburg Farm Herd	Foxburg	38.02	RG	7193	361.8
J. W. Hartman & Son	Sligo	15.64	R:GG	6921	344.2
J. E. Lucas & Son	Mayport	16.78	R:GH	9519	342.3
Wm. & C. A. McCauley	New Bethlehem	16.52	RH	9291	336.3
C. A. Wagner	New Bethlehem	8.47	GG:GH	7338	336.2
D. A. Stahlman	New Bethlehem	12.34	R:GG	6058	327.8
E. H. DeVilder	Miola	5.13	RG	6304	326.9
C. L. Risher	East Brady	21.28	R:GH: GG	8201	315.8
B. W. Thompson	Clarion	14.24	R:PH	8830	314.1

CLEARFIELD COUNTY—(Clearfield Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Max Forcey	Woodland R. D.	20.52	R:GJ	8394	445.0
Ben W. Dale	Woodland, R. D.	15.78	R:GJ	7644	410.6
Morris Shimmel	West Decatur, R. D.	11.22	Mixed	8694	393.3
Hotel Logan Farm	DuBois, R. D.	11.73	Mixed	8780	391.5
Harry Gearhart	Bigler	5.18	R:GJ	6968	385.8
S. J. Zemka	Clearfield, R. D.	14.27	Mixed	8452	380.1
Wendell Turner	Philipsburg, R. D.	21.77	Mixed	8789	365.5
L. S. Hay	Sabula, R. D.	10.79	R:GG	7400	365.1
S. R. Thompson Estate	Philipsburg, R. D.	13.33	Mixed	8286	344.7
C. W. Peters	Woodland	13.92	Mixed	7705	335.4
Metzger & Leiby	Curwensville, R. D.	27.64	Mixed	7932	335.2
M. C. Brothers	Cherry Tree, R. D.	14.86	GH:GG	7626	318.9
William Fairman	DuBois, R. D.	18.41	Mixed	6875	316.9
R. H. Mull	Philipsburg	8.03	GG	6031	312.0
C. O. Mattern	Osceola Mills, R. D.	17.35	RG	6460	308.1

COLUMBIA COUNTY—(Columbia Association)

Danville State Hospital	Danville	84.57	R:GH	12560	439.4
Central Poor District	Retreat	31.01	RH	12437	419.0
M. B. Rote	Millville	10.29	RH	11895	400.1
F. F. Hayman	Stillwater	12.97	RG	6673	354.7

CRAWFORD COUNTY—(Titusville Association)

D. N. Burrows	Pleasantville	18.38	RH	11077	392.7
Hasbrouck Bros.	Titusville, R. 2	15.73	RH	11305	382.1
Geo. M. Hummer	Titusville, R. 2	12.33	RJ	7121	379.1
James Kelly	Titusville, R. D.	16.45	RG	6989	347.8
A. K. Hummer	Titusville, R. 2	22.42	RH	9842	341.6
J. P. Harrison	Centerville, R. 2	15.10	GH:G	8783	329.3
Raymond Harrison	Spartansburg, R. 3	22.77	R:GH	8467	308.1
H. O. Hoovler	Tryonville, R. 2	12.64	R:GG: Mixed	6395	308.1
E. W. Hummer & Son	Titusville, R. 2	30.18	R:GJ	5416	302.7

CRAWFORD COUNTY—(Western Crawford Association)

Ray McConnell	Atlantic, R. D.	6.93	RH	10023	334.1
H. R. & P. M. Dodds	Adamsville	7.60	Mixed	7702	322.6
Paul McMichael	Conneaut Lake	11.57	RJ	6292	317.9
J. S. Patton	Hartstown	20.42	Mixed	9096	314.7
Ida M. Cribbs M. Home	Conneautville	11.82	GG	5930	312.2
C. H. Steadman	Atlantic	9.33	R:GH: Mixed	8182	306.6
George Hazen	Conneaut Lake	13.41	RJ	5573	305.4
G. A. Belknap	Conneautville	22.37	RH	9586	303.0
Harry S. Taylor	Espyville	11.95	RH:RJ	7907	300.2

CRAWFORD COUNTY—(Crawford-Venango Association)

Harry Sharp	Diamond	6.45	RJ	7923	435.2
Irwin Smith	Guys Mills, R. 2	9.23	RH	11067	389.8
J. G. Sherred	Venango	12.08	RH	10863	359.4
Dave Deremer	Townville, R. 1	7.56	Mixed	7486	357.3
D. C. Pettegrew & Son	Townville, R. 1	8.42	R:GJ	6736	341.0
Joseph Poux	Guys Mills	9.82	GH:PH	9501	323.4
Wesley Reitze	Meadville, R. 5	9.07	RH	9365	323.0
Dr. O. H. Stanford	Cambridge Springs	10.87	RG	6845	322.5
R. W. & L. L. Luce	Guys Mills, R. 4	11.64	RJ	5693	306.8
H. L. Clark	Townville, R. 1	9.55	Mixed	8146	303.7

CUMBERLAND COUNTY—(Cumberland No. 1 Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Ivo O. Otto	Carlisle, R. 6	16.35	RH	15171	532.2
A. E. Rider & Son	Mechanicsburg, R. 2	15.93	R:GH	13667	454.1
A. G. Wingert	Mechanicsburg, R. 5	20.13	RH	12965	430.7
F. D. Myers	Mechanicsburg, R. 1	22.54	R:GH	12378	423.1
Mark R. Bashore	Mechanicsburg, R. 5	11.70	R:GH	12349	414.4
Albert F. Kost	Carlisle, R. 7	21.21	RH	11677	404.8
W. A. Eckert	Mechanicsburg, R. 5	10.43	R:GG	8425	403.8
Clarence M. Cornman	Mechanicsburg, R. 5	11.50	RH	11901	402.6
William S. Ker	Carlisle, R. 9	20.90	RH	11341	384.0
Elmer C. Ludt	Carlisle, R. 5	13.01	RH	11007	372.8
C. G. Niesley	Mechanicsburg, R. 1	18.82	RH	10081	372.2
H. K. McCullough	Newville, R. 1	19.32	RG	7186	368.5
S. B. Weber	Mechanicsburg, R. 2	20.42	R:GH	11108	366.4
J. N. Kruger, Herd 1	Carlisle	19.00	RH:GG	10583	365.8
G. Weir Strock	Mechanicsburg, R. 2	23.34	RH	10447	365.6
Paul C. Gibble	Mechanicsburg, R. 1	19.60	RH	10409	362.5
J. H. Lear	Carlisle, R. 5	16.42	RH	10050	361.8
Abram N. Lehman	Carlisle, R. 2	18.78	R:GH	10158	357.1
F. B. Sellers, Jr.	Carlisle	11.00	RH	9819	351.4
George M. Harman	Barnitz	15.17	GG	7947	348.0
Methodist Home	Mechanicsburg	13.41	R:GH: GG	9325	347.3
Harry Hamsher	Mechanicsburg, R. 4	11.85	R:GH	9822	347.0
J. M. Conrad	Mechanicsburg, R. 5	14.42	R:GH	9902	345.2
S. E. Raudabaugh & Son	Mechanicsburg, R. 1	9.78	R:GH	10543	343.0
Miss Anne McCormick	Harrisburg	6.84	RG	7175	341.8
George Nauss, Jr.	Carlisle, R. 7	14.03	R:GH	9489	331.0
George E. Wilson	Mechanicsburg, R. 2	10.04	RH	9803	330.9
S. W. Zeigler	Mechanicsburg, R. 2	14.51	RH	9630	329.3
A. H. Basom & Son	Dillsburg	17.04	R:GH: GG	9706	323.6
J. W. Raudabaugh	Carlisle, R. 7	18.83	R:GH	9528	320.1

CUMBERLAND COUNTY—(Cumberland No. 2 Association)

Wilson A. Shughart	Carlisle, R. 7	7.76	RH	15476	534.4
Paul O. Sunday	Carlisle, R. 7	10.12	R:GH: GG	10890	409.0
Hugh L. McMeen	Carlisle, R. 7	14.17	RH	11542	401.6
Guy L. Loy	Newville, R. 4	14.86	RH	12279	400.4
J. O. Chronister	Carlisle, R. 6	10.74	R:GH	10965	375.3
J. Brady Smith & Son	Shippensburg, R. 1	17.22	R:GH	11143	372.6
W. A. Woods & Son	Carlisle, R. 8	12.04	RH	10876	360.3
R. Bruce Stuart	Carlisle, R. 3	13.78	RH	10331	334.1
Charles C. Hoffer	Carlisle	13.92	R:GH	9270	325.0
Benj. J. Zimmerman	Carlisle, R. 6	9.44	RH	9578	316.4
Harper J. Wetzel	Carlisle, R. 4	14.92	RH	9815	314.1
Enos H. Hess	Mechanicsburg, R. 2	14.17	R:GH	9067	311.4
Ernest Shover	Carlisle, R. 7	14.83	R:GH: Mixed	8101	300.5
Wallace W. Peffer	Newville, R. 1	10.34	RH	8697	300.0

DAUPHIN COUNTY—(Dauphin Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
A. H. Erdman	Elizabethville	16.66	RH	12106	388.8
C. S. Erb Co.	Middletown	18.64	RH	11266	376.7
Daniel C. Romberger	Elizabethville	10.03	R:GH	11298	373.1
Charles K. Fertig	Dauphin	10.33	RH	11843	370.1
Benjamin A. Weiss	Lykens, R. 1	5.86	R:GH	9918	353.5
Max A. Lauffer	Middletown	8.91	RH	8971	328.9
Hershey Estate	Hershey	283.27	R:GH	9750	322.5
Howard Speece	Dauphin	16.79	R:GH	9632	319.8
Harrisburg State Hosp.	Harrisburg	51.22	R:GH	9967	311.7

ERIE COUNTY—(Wattsburg Association)

Paul Dennie	Union City	5.76	R:GH	9650	350.1
F. L. Williams	Union City	7.19	R:GH	9949	339.7
Sacred Heart Mission H.	Girard	30.24	RH	9969	335.8
Hazen Follett	Corry, R. 5	16.66	RH	9868	330.7
Ames E. Brown	West Springfield	16.21	R:GH	9237	327.9
County Home Farm	Girard	15.46	GH	10309	323.3
Lester Hosbach	Erie, R. 1	30.49	RH	9900	319.6
H. A. Burdick	Waterford	18.66	GH:Mix	8182	302.2
F. H. Hopson	Wattsburg	18.58	GH	9067	301.5

FAYETTE COUNTY—(Fayette Association)

E. E. Arnold	Vanderbilt	8.58	R:GH	11788	400.0
Mt. View Dairy	Fairchance	15.34	Mixed	9925	385.1
J. Espey Lynn	Vanderbilt	15.46	Mixed	8996	382.2
G. G. Gault	Dawson	11.00	R:GG	6847	366.6
A. R. Pugh	Lake Lynn	10.00	GJ:Mix	6758	321.6
Pleasant Level Dairy	Connellsville	24.55	R:GH: R:GG	7453	315.4
T. W. Gans & Son	Gans	8.33	Mixed	6975	311.2
O. W. Rittenhouse	Smock	10.37	R:GH	8404	302.1

FRANKLIN COUNTY—(Southern Franklin Association)

James Dayhoff	Waynesboro	11.40	R:GA: Mixed	9860	413.0
W. H. Stevenson	Midvale	38.04	R:GG: Mixed	8910	400.0
I. P. Benedict	Waynesboro	8.78	RG	7364	383.5
Ira Shenk	Waynesboro	16.08	R:GG: Mixed	9050	374.1
M. B. Mentzer	Chambersburg	13.33	RH	9633	361.1
W. F. Barkdoll	Waynesboro	30.42	R:GH: Mixed	9491	351.9
J. Myers & Son	Waynesboro	19.00	Mixed	8343	344.8
J. S. Stevenson	Waynesboro	39.34	R:GH R:GG	8400	337.1
J. R. Johnston	Waynesboro	40.59	RA:Mix	8330	325.0
Soldiers Orphan School	Scotland	16.92	R:GH: Mixed	8325	318.5
Luther Miller	St. Thomas	9.09	R:GH	9876	313.6

FRANKLIN COUNTY—(Western Franklin Association)

J. W. Hoffeditz	Mercersburg	12.66	P:GG	8466	388.1
Wilson Sisters	Metal	7.25	R:GG:J	6781	378.1
H. S. Wilhelm	Metal	9.12	R:GG	6222	306.6
J. W. Aughenbaugh	Mercersburg	13.66	R:GG Mixed	6365	306.2

HUNTINGDON COUNTY—(Huntingdon Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Pa. Industrial School	Huntingdon	50.34	R:GH	13448	476.2
N. E. Black	Alexandria	15.72	R:GG	8083	386.6
H. L. Grazier & Sister	Warriors Mark	12.11	R:BS	9468	376.7
James G. Oliver	Franklinville	8.75	R:GH	9800	357.6
Walter C. Henderson	Petersburg	14.02	R:GS	8229	349.0
Benj. R. Byler	Mill Creek	11.09	R:GH:G	8890	335.1
John T. Martin	Alexandria	12.32	R:PH	8776	304.3

INDIANA COUNTY—(Indiana Association No. 1)

William S. Wetzel	Marion Center	13.28	R:GJ	7701	416.1
Harry O. Kimmel	Shelocta	10.95	RH	11113	381.2
Clyde Houck	Clymer, R. 1	9.57	R:GJ	7381	378.2
H. A. McIsaac	Rochester Mills	11.23	R:GJ	3570	375.6
Torrance State Hospital	Torrance	33.49	RH	12217	369.7
H. W. Mumau	Clymer, R. 1	6.95	R:GJ	7304	367.6
John S. Ranklin	Indiana, R. 1	10.57	R:GJ	6584	365.9
Indiana County Home	Indiana, R. D.	20.23	R:GH	10669	364.8
G. C. Swan	Home	14.01	R:GJ	7066	362.1
Walter Simpson	Marion Center	13.30	R:GJ	7140	351.9
Carl Walker	Marion Center	15.00	R:GJ	6560	351.3
W. F. Barkley	Livermore	12.56	GG:GH	7743	347.9
H. M. Travis	Smicksburg	10.90	R:GG: GH	7734	344.4
C. C. Pollock	Marion Center	8.10	R:GJ	6533	344.2
C. S. Gerhard	Blairsville	17.96	R:GH	10373	334.2
C. F. Allen	Dayton, R. 1	8.90	R:GG: Mixed	7003	319.0
C. L. Steele	Marion Center	8.77	R:GJ	5992	318.1
Quay McMillen	Clymer, R. 1	10.61	R:GJ: Mixed	6673	317.9
M. A. Smeltzer	Nu Mine	23.91	R:GH	8883	316.1
Wm. C. McMillen	Home, R. D.	16.37	R:GJ:GH	6874	308.4
A. P. Marshall & Son	Smicksburg	20.66	Mixed	7036	303.5
Clyde Haskins	Commodore, R. 1	8.16	RJ	8091	425.1
Clyde McConnaughey	Smicksburg	9.84	RJ	8053	420.4
Warren Buterbaugh	Penn Run	7.45	GJ	7709	419.2
J. F. Pounds	Indiana	17.05	R:GH: Mixed	10084	395.5
J. S. Cornell	Blairsville	10.19	R:GH: Mixed	9568	381.0
Henry Townsend	South Bend	7.75	R:GG	7581	378.7
H. Clay Bonner	Rossiter	14.07	R:GH: Mixed	8841	365.4
J. Paul Kimmel	Shelocta	8.14	R:GH:J	9882	360.9
H. P. Williams	Blairsville	18.81	R:GH	6864	340.5
J. M. Hood & Sons	New Florence	12.91	RJ:H	7158	339.4
E. T. Libengood	Blairsville	10.82	Mixed	7934	331.9
W. H. Wood	Shelocta	8.44	R:GH	9227	330.7
James Lynch	New Florence	17.49	J	6776	328.5
Norman Little	Creekside	13.47	GH:Mix	7702	316.8
R. W. McCreary	Indiana	11.62	GH:G	6621	301.4

JEFFERSON COUNTY—(Jefferson Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
A. J. Bullers	Brookville, R. 6	8.34	R:GG	8331	445.0
Angus Wilson	Punxsutawney, R. 4	10.51	R:GJ	7132	404.5
John Mohney	Punxsutawney, R. 4	7.87	GJ	7269	403.2
G. O. Schuckers	Brookville, R. 1	9.22	RH	11377	396.7
Mitchell & Lingenfelter	Punxsutawney, R. 5	7.03	Mixed	9646	388.7
E. E. Swineford	Reynoldsville, R. 1	17.25	R:GJ	7304	386.5
W. L. Frost	Brookville, R. 6	9.23	R:GG:J	7252	350.6
Wm. J. Youngdahl	Brookport	10.08	GG	6735	338.2
N. M. Dinger	Oliveburg	7.18	Mixed	8425	333.6
Howard Smith	Reynoldsville, R. 2	16.43	Mixed	7078	305.5

JUNIATA COUNTY—(Juniata Association)

C. D. Stouffer	Port Royal	17.36	GH	11878	422.1
J. W. Seiber	McAlisterville	10.02	R:GH	11116	393.3
H. I. Gray & Son	Honey Grove	14.65	RH	10905	371.0
Chas. F. Hart	McAlisterville	7.63	GH	10934	360.3
H. C. Zook	Mifflin	13.67	RH	9442	342.0
T. Furman McClure	Port Royal	10.75	RH	9894	335.1
Carl L. Smith	McAlisterville	16.17	R:PGH	9648	334.9
Karl A. Fettig	Port Royal	10.80	RH	9500	327.9
M. H. Zimmerman & Son	Mifflin	6.33	R:GH: Mixed	8992	327.3
J. L. Gelnett	Millerstown	7.91	RH	8265	314.6

LACKAWANNA COUNTY—(Lackawanna Association)

Mrs. Vera Seamans	Factoryville	13.14	GH:Mix	9795	344.2
Blackwell Bros.	Ransom	17.62	R:GH:G	8105	315.8

LANCASTER COUNTY—(Garden Spot Association)

Ira M. Ebey	Gordonville, R. 1	16.33	RH	11622	390.4
Elmer Stoltzfus	Elverson, R. 3	14.22	R:GH	11176	372.3
Mast Stoltzfus	Morgantown	21.20	RH	11214	368.4
H. R. Metzler	Paradise	18.69	RH	10871	363.3
Jacob S. Horst	Bareville, R. 1	12.81	RH	9231	338.8
M. V. Brubaker	New Holland, R. 1	11.24	RH	10469	327.0
H. K. Martin	Goodville	13.92	R:GH	9635	319.4
Geo. G. Sauder	East Earl, R. 1	14.40	RH	10075	319.0
J. F. Stoltzfus	Elverson, R. 3	15.45	R:GH	9947	316.9

LAWRENCE COUNTY—(Lawrence Association)

Lauran Thompson	New Wilmington	16.14	RJ	7748	414.6
J. A. Boak & Sons	New Castle, R. 4	16.08	RJ	6268	329.4
R. W. Harterbach	Monaca	13.89	R:GG	6498	319.4
Arnold Bros.	Beaver Falls	11.67	RG	6146	308.5
J. W. Martin & Sons	Bessemer	14.77	RJ	5444	301.2
Milo Moose & Son	Volant, R. 3	11.13	RJ	5925	301.1
H. L. McCurley & Son	Enon Valley, R. 2	17.30	R:GJ	5494	301.0

LEBANON COUNTY—(Lebanon Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Frank W. Fernsler	Lebanon, R. 1	27.05	RH	11983	407.9
Isaac Mock	Myerstown, R. 2	7.38	RG	7571	407.1
Fairview Farms	Cornwall	66.82	RG	7553	369.5
Henry M. Ebersole	Lebanon, R. 4	12.62	R:GH	10911	369.4
Robert B. Royer	Lebanon, R. 6	15.68	RA	9210	362.1
Frank Heilman & Son	Lebanon, R. 3	33.99	R:GH	10397	353.1
J. H. Schott	Lebanon, R. 6	24.28	RH	10019	348.0
Wm. D. Boeshore	Lebanon, R. 3	10.80	R:GG	7278	339.8
J. H. Troup	Sheridan	19.70	RH	9421	327.4
Ammon B. Brubaker	Myerstown	9.00	RH	9890	324.7
Harry B. Bomberger	Lebanon, R. 6	14.33	RJ	6308	323.7
Samuel K. Wengert	Lebanon, R. 7	23.70	R:GH	9594	321.9
J. Frank Reist	Myerstown	14.51	R:GH	8729	320.2
Levi Wolfe	Lickdale	12.84	RH	8512	318.1
Harry S. Forney	Palmyra, R. 2	20.23	Mied	7491	311.6
Wayne Keller	Myerstown, R. 2	19.25	R:GH	9496	306.2
C. C. Gingrich	Upper Lawn-Palmyra	22.57	RH	9196	303.4

LEHIGH-NORTHAMPTON COUNTIES—(Lehigh-Northampton Association)

L. A. Zimmerman	Lehighton, R. 1	22.13	RH	15148	495.8
Allentown State Hosp.	Allentown	52.02	R:GH	12481	405.3
Wm. Steigerwalt	Lehighton, R. 5	10.63	RH	11307	403.5
Harold R. Ziegler	Breinigsville, R. 2	13.63	RH	11821	400.0
Milton M. Shoemaker	Walnutport, R. 1	6.00	R:GH	11128	379.9
Willow Brook Farm	Catasauqua	37.08	R:GG	7502	368.9
Edna Abel	Allentown	8.55	RH:GG	10294	368.7
B. L. Hindenach	Easton, R. 6	14.46	RH:GG	9957	363.1
Floyd Shook	Pen Argyl, R. 1	17.53	RH	10244	362.8
Claude Kemmerer	Bethlehem	11.58	R:GH	9650	348.4
Fred Roth	Easton, R. 4	7.00	R:GH	10016	346.8
Northampton Co. Home	Nazareth	24.17	GH	9933	331.8
John J. Snyder	Easton, R. 5	20.86	R:GH	9556	322.1
Wenz Farms	Breinigsville	21.00	GG	6324	319.5
P. G. Lichtenwalner	Emaus, R. 1	19.55	RH	9206	316.1
Harry F. Roth	Nazareth	5.92	RH	10427	312.6
Weyhill Farms	Bethlehem	72.34	RH:GG	8188	308.6
Edwin G. Trexler	Allentown	10.38	R:GH	8904	300.9

LUZERNE COUNTY—(Luzerne Association)

H. P. Riley	Dallas, R. D.	10.08	RH:RG	9592	375.4
C. J. Major	Dallas, Star Route	12.09	R:GH: Mixed	9632	354.0
Sterling Machell	Dallas	9.54	RH	9555	350.0
Col. Dorrance Reynolds	Dallas	17.16	RG	7622	348.3
Marvin K. Elston	Dallas	13.12	GH:GG	8145	333.3
Shoemaker Bros.	West Wyoming	19.69	RH	9812	325.2
W. T. Payne	Dallas	59.54	GH:R: GG	8423	306.6
Melvin Mosier	Dallas	12.78	RH:Mix	8832	305.2
Willard Cornell	Dallas, R. D.	13.67	GH	7684	301.0

LYCOMING COUNTY—(Lycoming Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
S. L. Nicholson & Son	Muncy, R. 2	10.93	RH	12443	433.2
State Ind. Home	Muncy	26.03	RH	12024	407.0
Geo. L. McCormick	Allenwood, R. D.	8.69	RH	10761	357.3
LaRue Reed	Muncy, R. D.	13.24	Mixed	8834	347.4
H. A. Snyder	Montoursville, R. 1	19.33	RH	9242	339.5
H. R. Paulhamus	Hepburnville, R. D.	15.26	RH	9109	336.5
O. A. Shirey	Linden, R. D.	19.28	RH	10159	325.9
Alinas Robbins	Muncy, R. 5	7.47	RH	9343	318.6
McCracken & Zerbe	Jersey Shore, R. D.	26.83	R:GH: Mixed	9177	306.3
A. J. Sealy	Allenwood, R. D.	12.82	P:GH	9008	301.5

MERCER COUNTY—(Mercer No. 3 Association)

Wilhelm Bros.	Sharon	15.09	Mixed	8475	404.3
Carl J. Kepner	Sharpsville	19.74	Mixed	7720	358.0
Ellsworth Brown	Greenville	9.40	R:GJ	5991	334.7
Harry Moore	Sharpsville	18.40	Mixed	8458	326.8

MERCER COUNTY—(Grove City Association)

Mercer Sanitarium	Mercer	13.17	RJ	9541	529.8
John Porter	Sandy Lake	11.72	RJ	6268	451.9
Gilbert McDowell	Grove City	12.93	RJ	7664	407.3
W. I. Blake	Mercer	14.35	RJ	7403	402.4
J. D. Baker	Grove City	14.01	RJ	6536	391.4
Mercer Hospital	Mercer	7.44	Mixed	7968	385.9
R. C. Henderson	Sandy Lake	6.70	GJ	6815	382.6
J. B. Griffin	Sandy Lake	10.45	PJ	6516	379.6
L. R. Critchlow	Harrisville	17.22	R:GJ	6621	375.0
Hugh Fergus	Slippery Rock	32.23	GG	7566	372.5
Mrs. C. L. McCoy	Mercer	5.63	R:GJ	6734	365.1
T. P. Campbell	Grove City	16.78	R:GG: Mixed	8115	358.5
C. E. Cummings & Son	Mercer	12.34	GJ	6658	354.7
L. G. Pearson	Mercer	14.16	Mixed	8168	353.8
R. W. McConnell	Harrisville	7.77	PJ:GG	7174	348.8
A. M. King	Mercer	12.37	R:PJ	6381	345.5
C. M. Worley	Mercer	9.78	RG	6702	342.9
A. W. Weaver	Mercer	11.94	R:GG: Mixed	8357	342.7
F. P. Bartley	Grove City	9.58	R:GJ:G	6609	336.5
S. C. Miller	Grove City	19.52	R:GJ	6017	332.9
Pew Estate	Mercer	17.62	R:GG	6267	328.7
C. L. Amon	Sandy Lake	10.25	GJ	6356	321.0
W. G. Montgomery	Grove City	13.79	RH	9146	318.0
J. B. Campbell	Harrisville	9.54	RJ:H	7349	312.8
M. M. King & Sons	Mercer	19.58	RH	9046	311.3
I. O. O. F. Home	Grove City	15.83	R:GH	9078	301.2

McKEAN COUNTY—(McKean Association)

E. D. Comes & Sons	Smethport	24.23	RH:RJ	12721	469.6
Grace E. Emery	Bradford	28.36	RG	8748	422.4
John Lewis	Ceres	9.83	R:GJ	7517	380.0
A. T. Larson	Kane	10.59	P:GH	9971	345.8
Wahlberg Brothers	Kane	21.48	Mixed	8328	333.0
C. R. Tubbs	Turtle Point	8.81	P:GH	10490	331.0
Gustafson Brothers	Kane	15.75	R:GG: Mixed	8005	326.6
A. W. Huff	Mt. Jewett	11.46	RH:A	8866	325.3
C. L. Tubbs	Turtle Point	23.87	P:GH	10215	324.5
M. S. Comes, Jr.	Smethport	25.25	RH	9010	301.5

MIFFLIN COUNTY—(Mifflin Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Thomas J. Byler	Allensville	14.20	GH	10353	382.0
Amos Yoder	Allensville	13.66	R:GH:GJ	8062	385.7
David H. Byler	Belleville	9.16	R:GH	10470	359.5
H. H. Bradford	Lewistown	10.20	RH	10191	352.4
John Fleming	Belleville	8.80	R:GH R:J	9052	341.3
Luther Dunmire	McVeytown	8.39	GH	8858	336.4
Samuel Mitchell	Lewistown	14.25	R:GH	9840	336.2
Maltz Home	Granville	11.23	RH	9042	330.2
E. W. Fisher	Granville	10.67	GH:Mix	7753	329.7
C. Wm. Bonson	Belleville	13.09	R:GH	9184	323.8
John Mull	Lewistown	10.64	Mixed	8436	314.7
H. A. & E. E. Price	Lewistown	12.25	R:GH	8917	309.3
John O. Wirt	McVeytown	7.83	GH	8386	305.0
Fern Aurand	Lewistown	9.75	R:GH	8238	301.8

MONTGOMERY COUNTY—(Montgomery No. 1 Association)

Silver Spring Farm	Norristown, R. 4	8.25	R:GG	9206	409.3
Wayne B. Schultz	East Greenville	14.26	R:GH	11410	400.6
Shipley School Farm	Gladwyne	11.73	R:GG	7723	386.6
Harvey Murphy	Norristown, R. D.	19.38	GH	10161	376.9
Compton Farm	Chestnut Hill	13.61	RJ	6998	366.6
H. D. Allebach	Trappe	17.28	RJ	9899	363.9
Gwynllan Farm	Gwynedd Valley	58.56	RG	7064	353.6
Ursinus College	Collegeville	15.09	RH	9642	350.0
Homer Schultz	Hereford	14.72	RH	9546	345.1
Owen Gerhart	Palm	26.65	R:GH	9308	331.2
S. C. Burton	Maple Glen	21.51	RG	6767	327.8
Longmeadow Farm	Bryn Mawr	10.75	R:GG	6841	322.3
Mrs. Howard Bieler	East Greenville	15.91	R:GH	9380	321.3
J. L. Wood & Sons	Red Hill	21.49	R:GH	9288	320.1
C. J. Hedrick	Royersford, R. 2	14.70	RH	8885	318.2
A. L. Bailey	Haverford	12.49	RJ	6394	317.7
G. Cadwalader	Fort Washington	10.02	R:GG	6555	314.1
Annasmead Farm	Ambler	21.81	RJ	5701	313.6
Alvin Funk	Royersford, R. 1	17.99	R:GG	7162	312.6
Howard L. Baker	Center Square	18.23	RH	8721	312.2
W. C. Randolph	Royersford	20.47	RJ	5880	311.9

MONTGOMERY COUNTY—(Montgomery No. 2 Association)

Ernest S. Webster	North Wales	16.92	GH	11532	398.3
Paul Brosz	North Wales	21.46	RJ	7163	386.4
Lewis Klein	Collegeville, R. 1	6.98	RA	9607	377.0
Charles Renninger	Frederick	26.27	Mixed	9682	370.3
Charles E. Fetterman	Barto	15.14	Mixed	9925	366.0
Wm. Pratt, Jr.	Willow Grove	19.75	Mixed	9137	351.1
Charles Shuman	Norristown, R. 4	10.75	Mixed	8869	337.0
Carson College	Flourtown	12.01	GG:H	7884	336.8
State Hospital	Norristown	28.74	GH	9351	335.6
Hugh A. Hamilton	Spring House	20.89	RJ	6349	333.1
Montgomery Co. Home	Royersford, R. 1	16.00	R:GH	9027	329.5
George Heuer	Fairview Village	71.69	Mixed	7339	325.3
F. E. Dixon	Elkins Park	20.67	RJ	5941	320.3
Erdenheim Farm	Norristown, R. 4	15.22	RJ	6009	317.8
Oswin Funk	Palm	14.50	R:GH	8858	313.0
Warren Heist & Son	Norristown, R. 2	11.47	GH	8611	310.5
Daniel Buckley	Ambler	12.25	Mixed	7675	305.3
George A. Davis, Inc.	Norristown	24.08	RA	7466	300.3

NORTHUMBERLAND-SNYDER COUNTIES
(Northumberland-Snyder Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
A. W. Stephens	Mooresburg	17.81	RH	10120	374.4
J. D. Smith	Milton, R. D.	9.75	RH:RG	9493	355.0
Harry Klingler	Beaver Springs	8.71	RH	10432	351.2
George L. Wesner	Watsontown	18.59	R:GH	10918	364.3
William L. Vincent	Danville, R. D.	8.55	GG	8038	348.0
E. D. Schnure	Milton, R. D.	15.82	R:GH	9901	344.2
W. C. Gauger	Watsontown, R. D.	13.01	R:GH	9978	333.5
Murray Dinius	Middleburg	9.63	R:GH	9630	327.3
J. Ray Keiser	West Milton	14.46	RH:RG	7757	318.8
Frank E. Rovenolt	Watsontown	25.43	Mixed	8828	316.2
Fisher Brothers	Kreamer	18.99	RH	9142	309.1
Ernest Ritter	Winfield	10.53	R:GG	6039	306.1
John B. Weller, Jr.	Middleburg	11.28	R:GH	8735	304.9
State Colony	Selinsgrove	22.62	R:GH	8476	304.2
Sunbury Milk Prod. Co.	Sunbury	23.39	R:GG	6539	301.0

PERRY COUNTY—(Perry Association)

George G. Beaver	Millerstown	15.11	RH	11775	424.0
James S. Beaver	Millerstown	10.96	RH	10883	383.6
Jonathan R. Black	Millerstown	7.06	RH	11012	374.7
Paul E. McKeehan	Blain	8.86	RH	10251	364.2
Harry R. Bixler	Millerstown	8.43	R:GH	9934	360.3
Ward R. Milligan	Loysville	12.89	RH	10542	354.2
Nelson B. Gable	Newport	7.17	R:GH	10463	353.9
Homer Gable	Newport	9.14	R:GH	9622	336.5
Harvey N. Bernheisel	Green Park	8.64	RH	9948	312.4
Porter L. Kerr & Son	Millerstown	9.33	RH:R:GJ	8557	306.5
Hugh A. Loy	Loysville	13.18	RH	9409	306.2

POTTER COUNTY—(Ulysses Association)

Lawrence E. Buck	Ulysses	27.37	RH	11413	400.1
John Bauer	Emporium	17.52	RH	11443	383.0
C. W. Warriner	Harrison Valley	14.17	RH	10095	353.7
Potter County Home	Coudersport	24.78	RA	8273	343.0
Edward Kosa	Ulysses	8.77	R:GH	9392	325.0
E. B. Pride	Mills	9.80	R:GH	9278	323.2
J. K. Martin	Galeton	13.22	R:GH	8115	303.5
D. E. Goodenough & Sons	Coudersport	11.65	R:GH	7325	303.0
E. C. McElroy	Coudersport	9.54	R:PA	7324	301.7

POTTER COUNTY—(Potter County No. 2 Association)

E. W. Traub	Germania	7.91	GH:GJ	8050	342.8
Harry E. Jones	Shinglehouse	8.21	R:GH	9043	339.7
Ellery Stonemetz	Shinglehouse	5.70	R:GJ	6457	321.3
L. C. Traub	Galeton	9.08	Mixed	7174	302.8

SCHUYLKILL COUNTY—(Schuylkill Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
U. E. Rhein	Cressona	7.98	R:GJ	7237	378.8
Guy S. Reed	Summit Station	18.86	GH:GG	10172	371.5
John Dietz	Schuylkill Haven	11.65	RH	9792	363.0
Arthur Heisler	Tamaqua	23.57	R:GH	9937	357.1
Roy Hunter	Ashland	16.92	R:GH: Mixed	9531	355.5
Jonathan Herring	Pine Grove	14.51	RJ	6843	346.4
J. H. Zerbey	Pottsville	10.92	R:GJ	6751	342.8
Boltz's Farms	Summit Station	7.24	RG	7652	337.1
I. Earl Paxson	Schuylkill Haven	20.61	R:GH: Mixed	9064	336.4
Roy Gauker	Cressona	11.69	GH	10131	335.0
Robert Ludwig	Hegins	23.21	R:GH: Mixed	9132	334.2
Houser Bros.	Ringtown	16.26	R:GH: Mixed	8999	329.5
Christ Wagner & Son	Tamaqua	36.91	RH:Mix	8796	328.4
Maud Richards	Pottsville	9.80	R:GJ	6896	325.7
Wm. Buechley	Cressona	17.50	RJ	6304	319.1
A. T. Riegel	Schuylkill Haven	19.39	R:GH	9018	305.7
E. Allen Hubler	Ashland, R. 1	13.94	GH:GG	7795	300.4

SOMERSET COUNTY—(Somerset Association)

Meyers Brothers	Meyersdale	15.35	RBS	9284	354.5
Geo. Engle	Berlin, R. 2	14.55	Mixed	7143	345.0
R. B. Luther	Johnstown, R. 4	11.58	Mixed	8644	340.0
Robert Wingard	Johnstown, R. 7	12.10	R:GH	8995	332.7
John E. Brant	Friedens	26.37	Mixed	7742	320.8
O. W. Beachley	Somerset, R. 5	15.10	R:GH	8378	311.3
W. H. Barnett	Sipesville	10.98	R:GS	7904	304.7
Somerset County Home	Somerset	45.10	RH	8963	300.4

SULLIVAN COUNTY—(Western Sullivan Association)

Fred Shaffer	Forksville	11.61	GH:GBS	7884	336.7
Litzelman Bros.	Dushore	13.04	GH:RH	9691	334.4
Thomas Doyle	Dushore	9.87	GH:RH	8763	313.9
Bernard Shaffer	Dushore	10.56	GG	7098	309.0
Frank V. Rohe	Dushore	7.93	RH:PH	9132	300.8

SUSQUEHANNA COUNTY—(Western Susquehanna No. 1 Association)

L. M. Thompson	Montrose	40.75	RH	13426	470.3
Floyd Hibbard	Springville	14.96	R:GH	12172	422.4
L. W. Briggs	Montrose	13.31	R:GH	10393	401.6
D. Fred Birchard	Birchardville	14.52	RJ	7268	389.8
Marvin Bush	Montrose	26.29	R:GH	10133	361.0
R. L. Carter	Rush	21.45	Mixed	8861	351.1
H. D. & T. J. Brown	Montrose	36.94	RH	10107	339.8
S. D. Warriner	Montrose	21.42	RA	7433	330.2
S. R. Ellsworth	Meshoppen	15.01	RH	8880	313.1

SUSQUEHANNA COUNTY—(Western Susquehanna No. 2 Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Wells C. Phelps	Nicholson	40.23	R:GH	11137	373.2
Ray Walworth	New Milford	31.55	R:GH	10138	366.7
C. H. Stearns	Kingsley	10.32	GH	9142	347.3
Perry Goff	Montrose	17.07	R:GH	9411	340.8
Fred Gunn	New Milford	18.67	RH	9629	332.7
Carlton Farms	Montrose	12.27	R:GG	6522	332.4
G. C. Shafer	Brackney	25.28	R:GH	9194	328.0
F. R. Cope, Jr.	Dimock	23.10	RH	9331	318.2
Scott & Bush	Montrose	23.23	RH	9229	314.7
Walter Hoppe	HopBottom	15.21	P:GH	9227	309.1
James W. Ball	Montrose	23.79	R:GH	9012	308.6
Theron Cooley	Nicholson	24.41	R:GH	8988	305.5

SUSQUEHANNA COUNTY—(Gelatt South Gibson Association)

Cordie Allen	Nicholson	17.68	R:GH	12854	416.9
Curtis Allen	Nicholson	18.46	GH:G	12319	414.7
Wilmot Bros.	Jermyn	27.55	R:GH	9532	358.7
Everett Lee	Carbondale	11.86	R:GH:G	8801	322.0
W. J. Horton	Clifford	29.33	R:GH	9740	320.4

SUSQUEHANNA COUNTY—(Choconut Valley Association)

Geo. & Wallace Beach	Apalachin, N. Y.	22.98	R:GH	9861	334.4
Wallace Jones	Little Meadows	6.62	GG	6202	309.1

TIOGA COUNTY—(Susquehanna Trail Association)

Albert Norman	Liberty	11.95	R:PJ	6963	369.0
Halleck Holcomb	Liberty	10.87	RH	9620	354.0
Oscar Stratton	Ogdensburg	8.00	GJ:GH	7442	344.0
S. T. Duffey	Lloyd	10.16	RGH:J	9211	343.6
Gordon Parker	Liberty	18.59	R:GH: Mixed	8724	331.1
Earl Bunn	Ogdensburg	10.13	GH:J	8880	330.9
Herbert Jones	Ogdensburg	10.66	R:GH	8847	329.5
W. H. Schneider & Son	Lloyd	9.42	RH	9223	323.7
Beck & Beck	Liberty	19.63	R:GH	8752	301.6
Wm. F. Fritzsche	Liberty	11.17	PJ	4909	300.0

TIOGA COUNTY—(Wellsboro Association)

Clark Bowen	Wellsboro	13.34	R:GH	12844	438.8
William Stevens	Wellsboro	10.18	RH	12588	426.7
Roy S. Bowen	Wellsboro	10.15	RH	12505	403.5
George B. Butler	Wellsboro	21.29	R:GG	8102	388.8
Carl Hasker	Wellsboro	7.84	R:GH	9838	338.7
Ralph Sampson	Crooked Creek	16.32	R:GH	9291	321.8

TIOGA COUNTY—(Cowanesque Valley Association)

Lucy Baldwin	Lawrenceville	21.14	RH	10225	326.6
D. R. Butler	Knoxville	9.70	RG	6267	317.0
A. G. Bowar	Nelson	17.22	GH:Mix	8385	316.0
E. S. Hartley	Osceola	15.53	GH:GG	8314	305.7

TIOGA COUNTY—(Mansfield Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Vaughn Managan	Covington	17.27	R:GH	11543	405.7
W. A. Wilcox	Mainesburg	11.95	RH	10585	394.2
Ray Woodard	Mansfield	13.53	GH	10463	376.2
Roy Whittaker	Covington	12.26	RH	10747	362.3
Olen Jackson	Mainesburg	10.12	RH	10172	350.4
Ernest M. Bolt	Covington	14.70	R:GH	9275	347.8
Jesse Inscho	Mansfield	16.39	RH	10505	339.0
R. M. Broderick & Son	Mansfield	23.38	RJ	6167	330.2
V. B. Odell	Mansfield	15.46	GH	8642	318.1
Claud Wilcox	Covington	11.99	PH	8787	315.9
W. J. Squires Est.	Mainesburg	14.30	RH	8820	309.5
Mark Wood	Mansfield	19.25	R:GH	8972	307.9
Roy Lee	Covington	13.02	GH	8495	306.2

TIOGA COUNTY—(Jackson Association)

A. D. Prutsman	Millerton	23.53	RH	11586	423.5
E. B. Spencer & Son	Millerton	23.64	RH	11593	416.1
R. R. Baker	Gillett	14.70	RH	11507	406.0
Frank Bly	Pine City, N. Y.	11.29	RJ	7249	400.0
T. R. Stevens	Millerton	20.75	R:GH	10647	367.8
Frank J. Allen	Lawrenceville	10.13	RJ:RH	7209	363.8
Dan Bly	Pine City, N. Y.	10.08	R:GJ	6513	363.7
Noel Card	Lawrenceville	15.67	RJ	6960	359.0
W. W. Deming	Millerton	20.83	RJ	6208	357.4
Fred Tillinghast	Gillett	12.83	RJ	6604	352.5
W. A. Segar	Rutland	11.06	R:GH	9823	345.8
W. E. Garrison	Millerton	20.17	R:GG	6939	341.5
Ford A. Cady	Pine City, N. Y.	15.77	RH	9128	331.3
Ford Smith	Millerton	10.64	R:GJ	6181	318.8
Raymond Wheeler	Pine City, N. Y.	10.06	GH:Mix	8624	318.5
A. G. Miller	Pine City, N. Y.	21.88	R:GH	8554	302.2
N. P. Peterson	Pine City, N. Y.	14.33	GH	8322	301.2

UNION COUNTY—(Buffalo Valley No. 1 Association)

A. C. Slifer	Lewisburg, R. 3	8.89	RH	14569	538.8
Fred D. Dock	Lewisburg, R. 1	13.20	RH	13168	462.3
W. S. Erdley	Lewisburg, R. 1	8.62	RH	13486	448.1
C. E. Erdley	Lewisburg, R. 1	20.89	RH	12405	414.5
H. K. Benner	Vicksburg	9.83	R:GH	11766	411.8
W. J. Erdley	Mifflinburg, R. 3	11.06	RH	11853	405.5
H. A. Walter	Lewisburg, R. 1	11.65	R:GH	11454	394.2
P. C. Shade	Mifflinburg, R. 3	10.55	RH	11675	392.3
Clark S. Miller	Lewisburg, R. 3	14.52	R:GH	10852	386.1
John S. Wehr	Mifflinburg, R. 3	11.57	RH	11114	378.3
J. S. Zeigler	Lewisburg, R. 4	22.29	RH	10410	376.6
R. J. Musser	Lewisburg, R. 3	14.73	RH	11414	375.8
Oscar Brouse	Mifflinburg, R. 1	7.44	R:S	9412	375.5
Mrs. Carrie Lincoln	Laurelton	9.84	P:GH:G	9964	374.3
Evangelical Home	Lewisburg	14.08	R:GG	7220	358.7
J. M. Erdley	Lewisburg, R. 1	15.51	R:GH	10039	357.1
J. L. Reitz	Lewisburg	20.86	RH:RJ	9641	341.4
J. A. Roush	Winfield	13.48	R:GH	9689	341.0
H. H. Moll	Millmont	10.74	RGP:H	8492	339.9
Clayton Hackenberg	Millmont	9.22	RH	9876	335.0
Geo. B. Frederick	Lewisburg, R. 3	17.07	R:GH	8842	318.6
J. S. Hackenberg	Lewisburg, R. 3	16.43	RH	8975	304.7
David C. Voneida	Lewisburg, R. 1	16.65	RS	8013	301.6

UNION COUNTY—(Buffalo Valley No. 2 Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Ray Ruhl	Mifflinburg, R. 1	7.71	R:GH	13474	508.4
W. H. Sauers	Lewisburg, R. 2	14.89	R:GH	12735	476.9
Charles H. Pontius	Mifflinburg, R. 1	8.87	R:GH	12345	429.3
W. J. Leinbach	Vicksburg	8.15	R:GH	10929	390.0
A. R. Walter	Swengel	8.99	R:GH: GG	10253	378.7
Laurelton S. V.	Laurelton	37.63	GH	10161	368.9
C. W. Blackford	Glen Iron	5.78	R:GH	10536	360.7
Warren D. Baker	Lewisburg, R. 4	11.94	R:GH	9731	350.4
Earnest W. Leitzell	Lewisburg, R. 4	13.08	R:GH: GG	9339	345.7
John J. Showalter	Millmont	8.42	RH	9439	338.5
John Pontius	Mifflinburg, R. 1	12.16	R:GH	10202	337.7
O. T. Eisenhuth	Vicksburg	9.88	R:GH	9884	336.8
C. L. Miller	Lewisburg, R. 2	8.13	R:GH: GG	9367	334.6
A. A. Eisenhauer	Lewisburg, R. 2	11.66	R:GH	9811	332.1
L. A. Troxell	New Columbia	13.10	R:GH	10142	331.7
Taylor Kostenbader	Lewisburg, R. 4	12.94	R:GH	9287	326.3
J. D. Shreck	Lewisburg, R. 4	14.70	R:GH	8724	321.7
Newton Sanders	Millmont	8.54	R:GH	8821	317.5
Cloyd A. Yost	Lewisburg, R. 2	15.16	R:GH	9095	306.3
Reber L. Groover	Lewisburg, R. 3	9.86	R:GH	9301	306.3
Calvin Stahl	Lewisburg, R. 1	10.52	RH	9457	301.3

VENANGO COUNTY—(Venango Association)

Polk State School	Polk	135.10	RH	13963	467.7
Lee J. Hancox	Titusville, R. 4	10.75	Mixed	11163	459.4
G. R. Wilcox & Son	Titusville, R. 4	7.01	Mixed	8952	390.6
John L. Mitchell	Oil City, R. 1	9.81	R:GG	7359	371.1
Dr. G. F. Boal	Cooperstown, R. 1	11.68	R:GJ	7356	360.8
E. W. Shaffer	Titusville, R. 5	14.76	R:GG	7371	355.1
D. H. Morrison	Van	11.42	R:GG	7518	354.2
W. E. Stewart	Titusville, R. 4	14.03	Mixed	8189	344.7
R. W. Strawbridge	Diamond, R. 2	9.29	RJ	6205	340.1
Morck Oil Company	Oil City, Star Rt.	5.75	R:GJ	6805	339.5
I. S. August	Diamond, R. 1	14.45	R:GJ	6393	332.2
McCoy Bros. & Co.	Emlenton, R. 5	19.67	RJ	5859	303.0

WARREN COUNTY—(Warren Association)

W. E. King	Akeley	6.70	RH	12683	429.9
State Hospital	Warren	84.44	R:GH	11518	382.3
Dr. E. J. Kelley	Chandlers Valley	8.07	R:GH: GG	9806	360.6
C. F. Norbeck	Sugar Grove	32.55	RH	10396	353.7
Crary Farms	Saffield	23.26	RH	9777	345.3
Harry Randall	Akeley	9.83	GH:Mix	8516	336.2
B. E. Firth	Russell	18.27	GH	9544	333.7
Rouse Hospital	Youngsville	34.54	R:GH	9920	330.3
Warde Weiler	Warren	19.82	RH	8884	313.4
Carl Johnson	Sugar Grove	13.10	Mixed	7955	311.2
Frank Lounsbury	Russell	9.42	RG	5785	305.3

WASHINGTON COUNTY—(Washington Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Hillsview Sanitarium	Washington	12.06	RJ	8746	433.4
Penna. Training School	Morganza	40.51	R:GH: RJ	11369	424.0
T. C. Gantz	Amity	15.22	R:GH: GG	10783	412.1
P. F. Morris	Charleroi, R. 1	13.88	RJ	7752	385.2
W. L. Hutchinson	Cecil, R. 2	14.89	RH	12286	383.4
Alex. Hamilton & Sons	Washington, R. 7	16.90	R:GG	7617	380.7
L. F. Porter	Eighty-Four	22.64	R:GG	8686	353.1
Mrs. Jane Elliott	West Brownsville	19.60	Mixed	7588	327.6
R. L. & A. D. Carter	Hickory	19.32	RH	10019	326.4
McClelland Bros.	Canonsburg, R. 2	22.54	RH	10064	315.5
J. A. Dinsmore	Washington, R. 3	30.15	R:PJ	6341	312.9
A. W. Morrison	Eighty-Four, R. 3	15.43	R:GJ	6261	311.3
Geo. Cowden	McDonald, R. 3	18.74	R:GA	7729	310.6
B. B. Wilson	Washington, R. 2	30.14	GH:GJ	8055	303.6

WAYNE COUNTY—(Preston Association)

Fred C. Erk	Starrucca	28.12	RH	10012	336.0
H. K. Stone	Pleasant Mount	33.10	R:GH	9219	325.8
H. A. Greenwood	Lakewood	12.23	GH	9081	320.1
I. R. Doyle	Poyntelle	12.42	R:GH	8540	310.1
Jay Decker	Preston Park	24.30	R:GH	8462	320.3

WAYNE COUNTY—(Wayne Association)

Farview Hospital	Waymart	29.16	Mixed	10738	452.6
H. A. Robinson	Seelyville	7.81	RJ	7421	411.0
Russell G. Erk	Prompton	27.59	RH:J	8658	406.7
E. H. Blake	Prompton	27.54	RH	11003	371.3
Hutchinson Bros.	Honesdale	15.33	Mixed	7477	352.4
W. F. Hauenstein	Waymart	21.58	RJ	7013	350.0
George Rosener	Aldenville	14.61	R:GJ	6461	348.1
C. J. Smith & Sons	Seelyville	26.49	RJ	6616	337.9
C.O. Blake & L.H. Grimm	Honesdale	11.95	RH	9874	327.8
B. F. Kennedy	Pleasant Mt.	21.80	GH	9384	327.0
S. O. Snedeker	Waymart	20.16	R:GJ	6354	322.9
Edward Erk	Seelyville	26.48	RJ	5861	317.0
Chester Rickard	Honesdale	17.32	Mixed	8307	311.1
E. H. Ledyard, Jr.	Waymart	19.86	GJ	5622	301.0
E. E. Kinsman	Honesdale	19.81	RH	8802	300.2

WAYNE COUNTY—(Lake Ariel Association)

Ray Frieble	Greentown	7.06	R:GH	12138	450.3
Jesse Miller	Waymart	15.13	R:GH	12771	424.0
John Simpson	Lake Ariel	11.57	Mixed	10309	381.8
Herbert Telshaw	Waymart	10.88	R:GG	8282	374.7
John Robinson	Waymart	10.71	R:GH	9196	370.4
John Swingle	Lake Ariel	8.16	Mixed	9259	366.6
Garland Enslin	Gravity	7.79	RH	10308	361.9
Wm. H. Osborne	South Sterling	7.55	Mixed	8117	363.7
Stanley Bagnick	Waymart	14.38	GG	7198	357.2
F. E. Carlton & Son	Lake Ariel	12.42	R:GH	9669	330.2
Adam Miller	Greentown	6.00	Mixed	7518	319.3
Dewight L. Chapman	Moscow	16.20	R:GH	9652	315.1
John C. Grimm	Greentown	7.31	R:GH	8447	313.0
D. L. McKinney	Waymart	12.92	Mixed	7132	307.3
Alfred Bortree	Moscow	18.44	Mixed	7910	302.4

WAYNE COUNTY—(Damascus Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Walter Blum	Milanville	17.58	RH	11257	375.2
Henry Knorr	Honesdale	12.55	Mix:RA	9571	372.8
Warner Robbins	Beach Lake	17.70	RH	10989	367.2
Blackwell Brothers	Damascus	14.00	RH	11190	364.8
C. E. Canfield	Damascus	12.07	RH	9375	303.9

WYOMING COUNTY—(Mehoopany Association)

Alfred Hallock	Laceyville	10.00	RH	11542	400.9
B. C. Adams	Mehoopany	7.55	R:GH:G	7977	338.2
E. V. Prevost	Tunkhannock	15.92	R:PH	9468	330.5
C. H. Reynolds	Tunkhannock	11.80	R:GH	9081	329.0
B. B. Harding	Tunkhannock	14.02	PH:GH	9217	326.6
C. W. Henning	Mehoopany	17.13	RH	9568	323.6
Furman Bros.	Mehoopany	21.25	GH:G	8647	318.4
H. & C. Love	Mehoopany	15.16	R:GG	7062	312.8

WESTMORELAND COUNTY—(Westmoreland No. 1 Association)

Miss I. C. Wohlwend	Salina	10.31	RS	10162	400.1
F. M. Kintigh	Irwin, R. 2	11.82	Mixed	8961	372.0
John Moffat	New Alexandria	15.82	R:GG:H	8122	366.7
J. M. & C. A. Lemon	Saltsburg	19.84	R:GH: GG	9320	341.0
R. D. Lemon & Son	Saltsburg, R. 2	9.76	R:GH	9596	330.6
Walter Lash	West Newton, R. 1	11.41	R:GG:H	8050	329.8
St. Vincent Archabbey	Latrobe	56.99	R:GH	9883	315.0

WESTMORELAND COUNTY—(Westmoreland No. 2 Association)

Westmoreland Co. Home	Greensburg	26.70	RH	14146	497.3
Walter D. Nicely	Ligonier, R. 3	7.10	R:GH	12738	451.8
Rolling Rock Farms	Laughlinstown	9.66	RS	9387	382.9
D. W. Robertson	West Newton	16.13	Mixed	8588	345.2
G. R. Funk	Hunkers	22.95	R:GH: Mixed	9667	341.8
G. B. Nicely	Ligonier	7.59	R:GH: Mixed	9310	337.6
E. G. Summy	Mt. Pleasant	18.90	R:GH	9338	328.4
J. E. Wineman	Youngwood	15.92	R:GH: GJ	8685	324.3
W. S. Martin	Belle Vernon	13.50	GG:H	7054	318.2
Orphans' Home	Ligonier	11.66	R:GH: Mixed	8137	316.9
S. W. Heath	Belle Vernon	20.07	R:GG	6220	304.3
George Stahl	Smithton	31.14	R:GH:G	8280	303.0
J. C. Gaut	Alverton	17.36	R:GH:G	8277	300.9

YORK COUNTY—(Northern York Association)

NAME	ADDRESS	AVE. No. COWS	BREED	LBS. MILK	LBS. FAT
Geo. B. Livingston	East Berlin, R. 1	10.89	R:GH	10919	400.8
Mahlon N. Haines,	Haines Acres, York, R. 7	24.20	R:GH R:GG	11274	388.1
Frank L. Krall & Son	East Berlin, R. 1	18.07	RH	11624	385.4
J. J. Hamme	Abbottstown, R. 1	13.33	RG	7667	380.3
Wm. F. Dummer	Mt. Wolf, R. 1	13.15	R:GH: GG	10526	377.3
L. D. Myers	Wellsville, R. 1	6.32	RH	10792	367.6
John S. Brant	Dallastown, R. 1	18.10	R:GG: GH	8174	365.8
Russell D. Harbold	Dillsburg, R. 5	5.00	R:GH	11254	362.7
Maurice A. Hulton	Etters, R. 1	7.51	R:GH	9586	353.9
D. D. Hoover	Wellsville	5.35	RH	10946	350.1
S. F. Raab & Son	Dallastown, R. 1	13.36	R:GH	9819	350.1
J. Raymond Arnold	Hellam, R. 1	36.67	GG	7212	343.3
Geo. W. Bacon	York, R. 4	40.44	R:GG	7180	339.2
H. M. & M. B. Emig	Hellam, R. 1	25.23	R:GJ: GH	7571	325.8
H. L. Drawbaugh	Cly, R. 1	8.18	R:GH	9328	322.8
C. Allen May	York, R. 5	21.39	RG	6968	318.0
C. H. Gross	Manchester, R. 1	10.54	GH:GG	9103	310.2
Harry Snyder	Etters, R. 1	7.49	GG	7111	308.0
L. D. Strayer	East Berlin, R. 1	10.31	R:GH	8730	307.7
Chas. A. Schaefer	York, R. 6	10.50	RG	6215	303.8
John B. Seitz	Camp Hill, R. 1	18.77	R:GG	6606	300.3

YORK COUNTY—(Southern York Association)

Lauxmont Farms	Wrightsville	17.94	RH	14189	471.5
H. J. Handley & Son	Delta	17.72	R:GBS: Mixed	9308	373.1
R. Carl McElwain	Stewartstown	14.54	Mixed	7843	346.8
Springdale Farm	York, R. 4	7.00	RH	9787	340.7
Cherry Grove Farm	York	7.75	RH	9894	340.0
W. M. Carico	Delta	19.52	GH	8108	339.5
H. G. Hall	Stewartstown	27.02	R:GH: Mixed	9263	338.5
W. S. Grimm	Red Lion	45.05	RH	9600	332.5

End of Volume